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NASA Contractor Report 3240

ORIGINAL

NASA TLA Workload Analysis Support

Volume 3 - FFD Autopilot Scenario Validation Data

James L. Sundstrom

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JULY 1980

NASA

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NASA Contractor Report 3240

NASA TLA Workload Analysis Support

Volume 3 - FFD Autopilot Scenario Validation Data

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Boeing Commercial Airplane Company
Seattle, Washington

Prepared for
Langley Research Center
under Contract NAS1-13741

National Aeronautics
and Space Administration

Scientific and Technical
Information Office

1980

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2.1	Workload Histogram Pilot/Copilot (WLH)		
	Total Vision	4	80
	Total Motor	5	81
	Cognition	6	82
	Total Communications	7	83
	Weighted Channel Average	8	84
2.2	Workload Summaries (WLS)		
	Climb	9	85
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VOLUME 3 INTRODUCTION

1.0 INTRODUCTION

Volume 3 consists of one set of TLA graphic reports plus the complete data file from which the reports were generated. The reports are complete for both the pilot and copilot. As can be seen in the index the data is presented for the pilot and then the copilot.

The data presented in this volume were used to validate the data construction of the detailed task scenarios. The outputs present two measures of demand workload and a report showing task length and task interaction. The measure of workload are the Workload Histogram (WLH) and the Workload Summary (WLS). The remaining report output is the Mission Timeline.

The Workload Histograms (WLH) provide a picture of peak demand workload for each ten second intervals of the scenario. Demand workload (Wd) is defined to be the level of effort required to perform a task at a specific time. It is calculated with the following formula:

$$Wd = \frac{\text{TIME REQUIRED FOR THE TASK}}{\text{TIME AVAILABLE (INTERNAL)}} \times 100$$

The WLH's provide an easy and convenient way of examining workload and/or comparing workload between scenarios. They also provide an excellent way of identifying areas which may require investigation due to the workload spike or drop.

The Workload Summaries (WLS) provide a picture of average workload, plus one standard deviation by phase of flight. This measure is presented as a barchart. Where the WLH shows the complete scenario workload the WLS

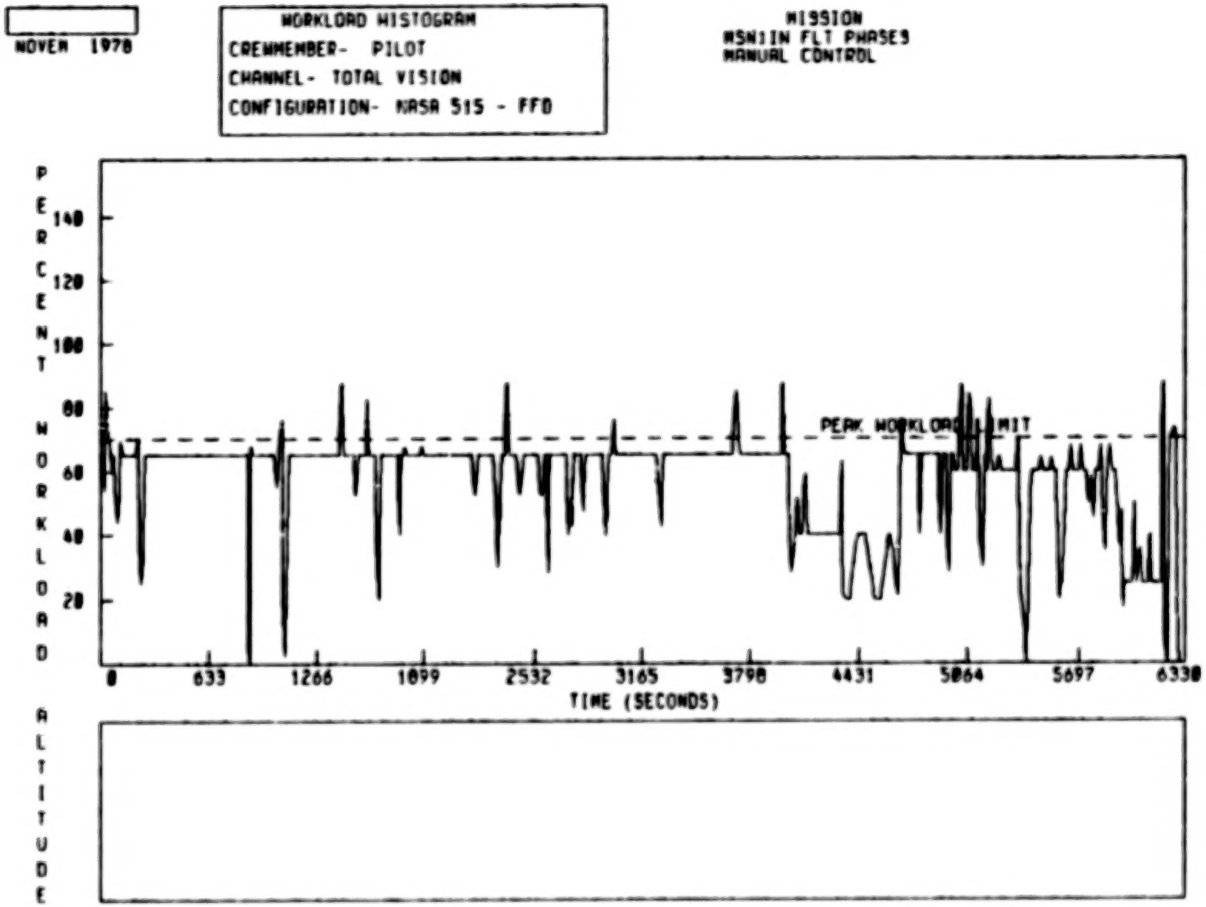
emphasizes workload during the phase. Also, the WLH does not account for the effects of potential workload as indicated by the standard deviation on the WLS graphics.

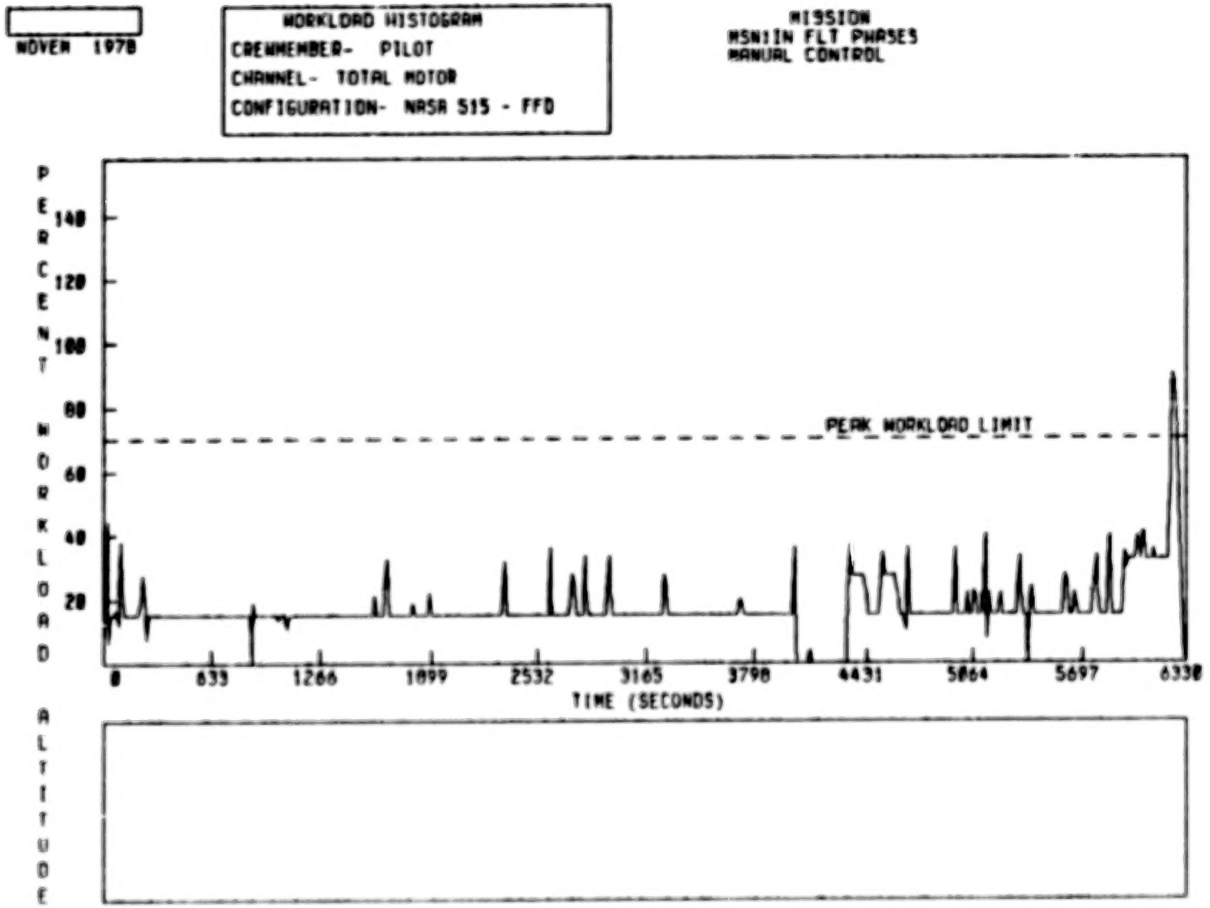
The last report presented in each grouping of reports is the Mission Timeline (MTL) report. This shows the tasks as they occur in time. Each task is defined as a horizontal bar indicating the time required to perform the task. The major factor shown in the MTL is the interaction of tasks. Primarily this report is used for analysis and report purposes. It is rarely used as a data debugging tool.

The last section of this volume contains a copy of the data file used to generate the Metering and Spacing scenarios and their report outputs.

2.0 FORWARD FLIGHT DECK AUTOPILOT SCENARIO VALIDATION DATA

The following section presents the output data used to validate the scenario construction. The data is presented by crewmember and then by report type as indicated in the index.


NOVEM 1978
WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL VISION
CONFIGURATION- NASA 515 - FFD
MISSION
MSN11N FLT PHASES
MANUAL CONTROL
PERCENT WORKLOAD
140
120
100
80
60
40
20
PEAK WORKLOAD LIMIT
0
633
1266
1899
2532
3165
3798
4431
5064
5697
6330
TIME (SECONDS)
ALTITUDE

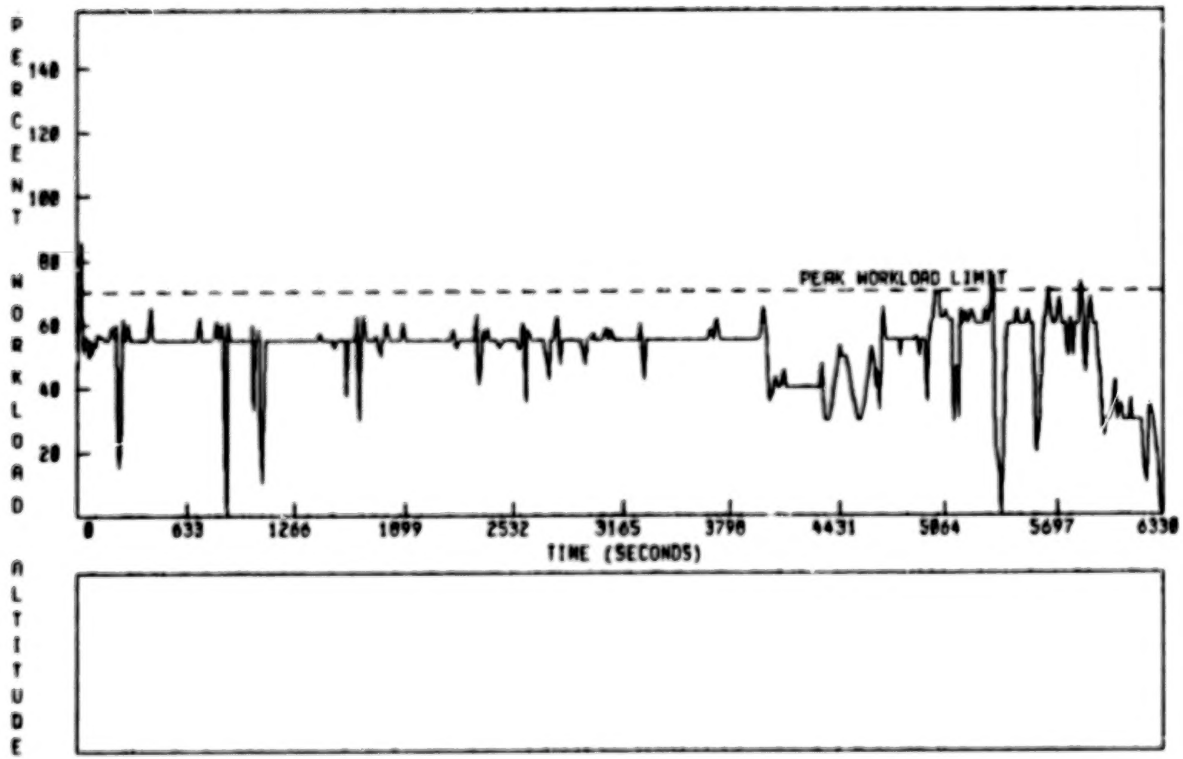

NOVEM 1978
WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- NASA 515 - FFD
MISSION
MSN11N FLT PHASES
MANUAL CONTROL
PERCENT WORKLOAD
140
120
100
80
60
40
20
PEAK WORKLOAD LIMIT
0
633
1266
1899
2532
3165
3798
4431
5064
5697
6330
TIME (SECONDS)
ALTITUDE

S

NOVEM 1978

WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- COGNITION
CONFIGURATION- NASA 515 - FFD

MISSION
ASNIIN FLT PHASES
MANUAL CONTROL



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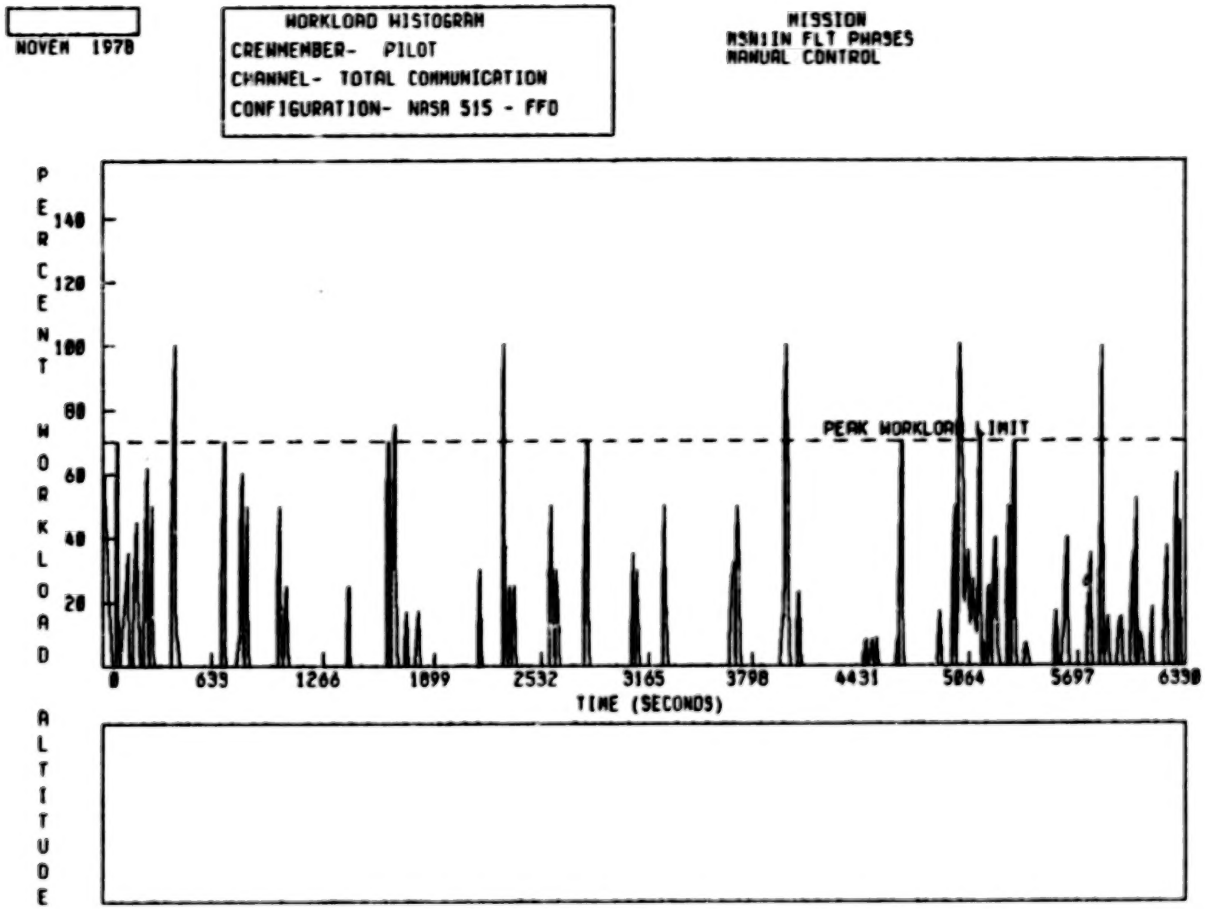
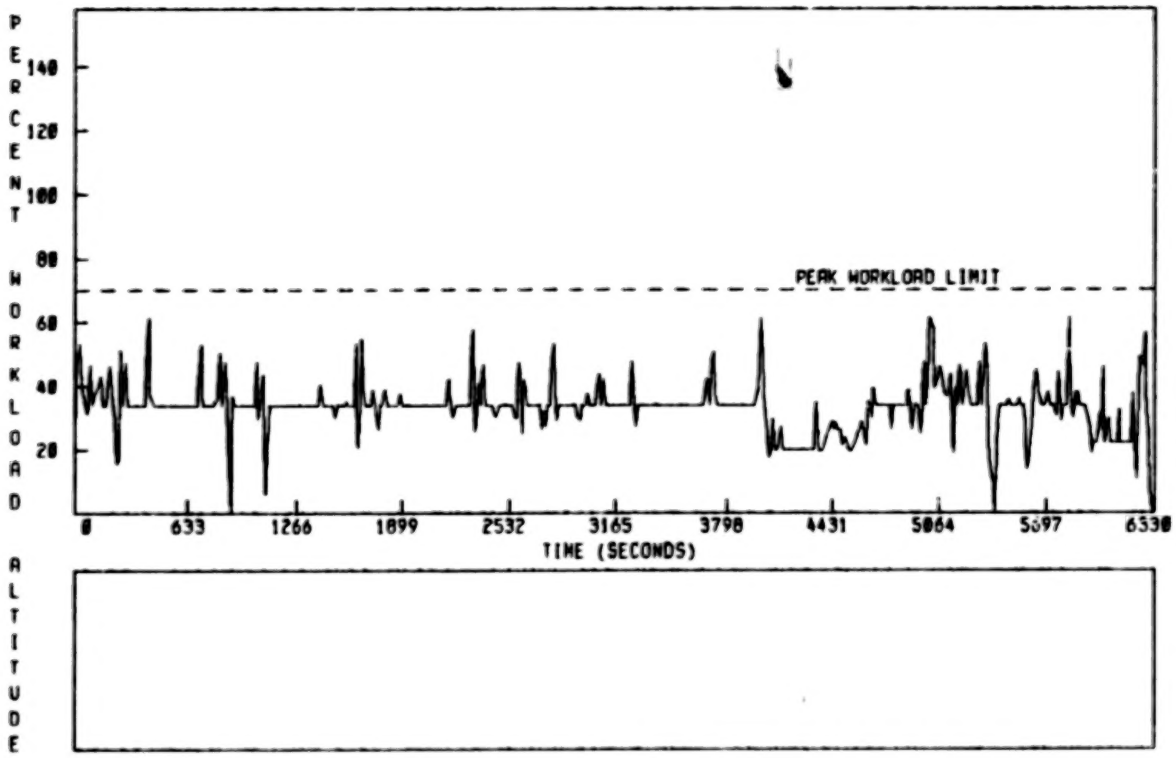
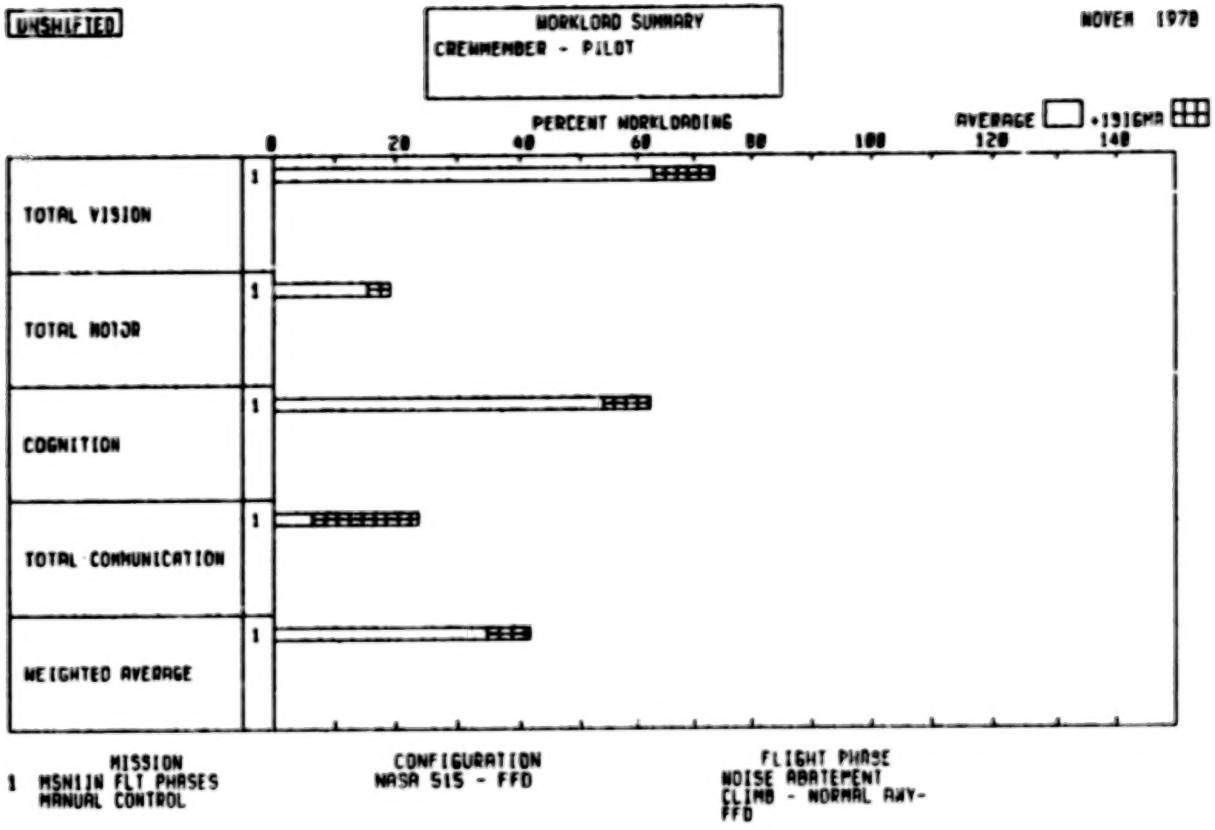

NOVEM 1978
WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- NASA 515 - FFD
MISSION
ASN11N FLT PHASES
MANUAL CONTROL
PERCENT WORKLOAD
140
120
100
80
60
40
20
PEAK WORKLOAD LIMIT
0
639
1266
1899
2532
3165
3798
4431
5064
5697
6330
TIME (SECONDS)
ALTITUDE

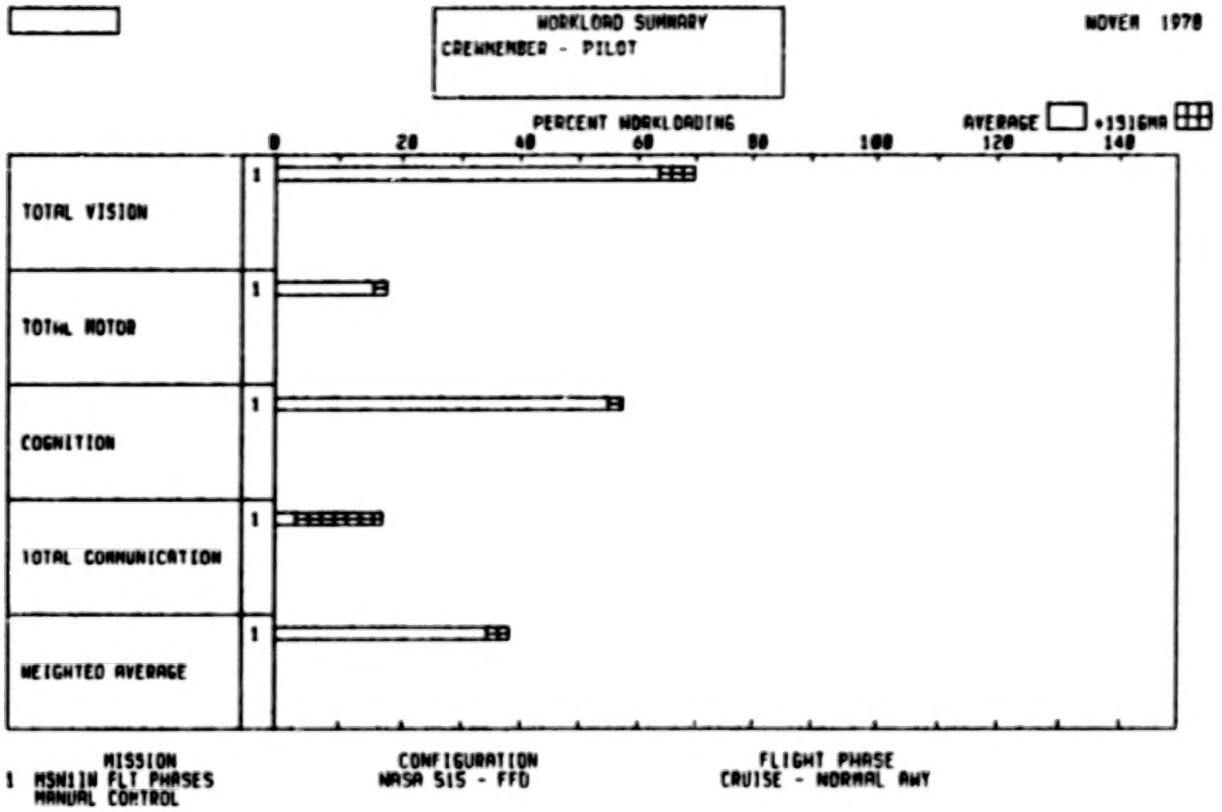
NOVEM 1978

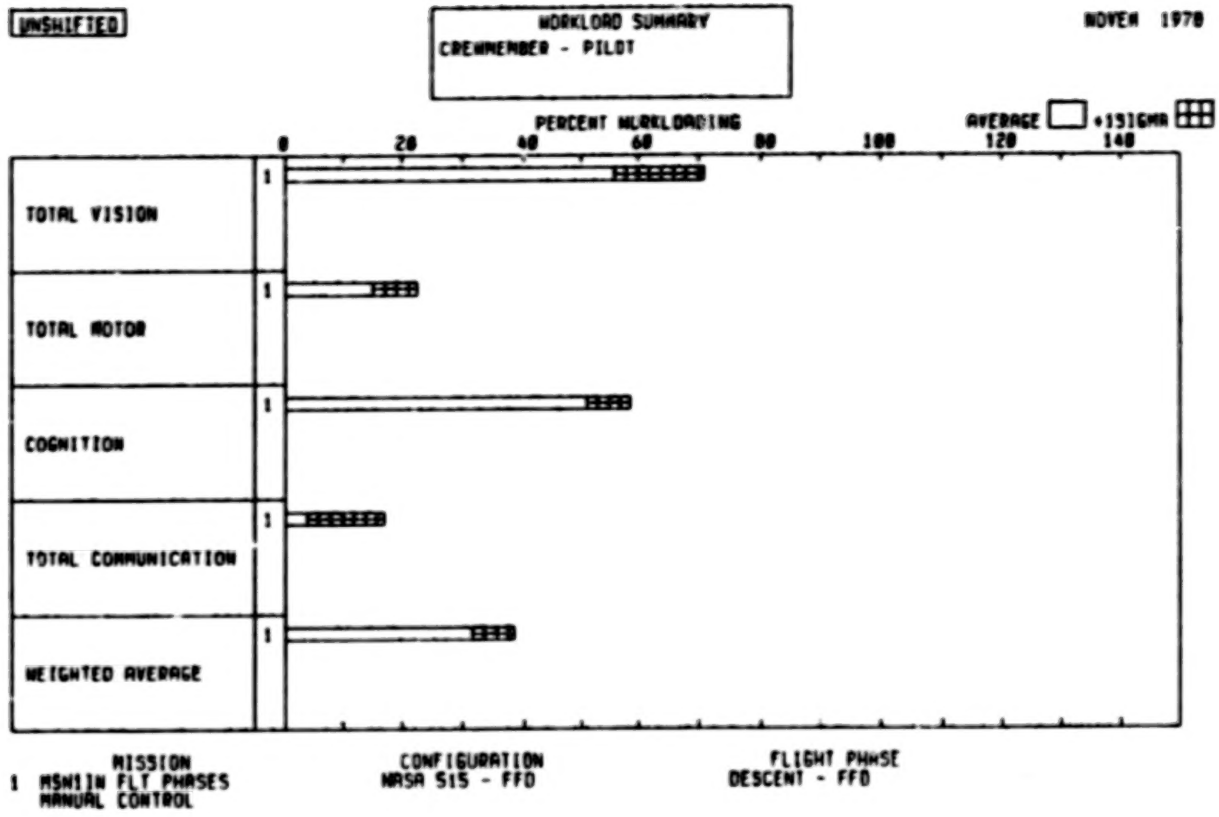
WORKLOAD HISTOGRAM
CREWMEMBER- PILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- NASA 515 - FFD

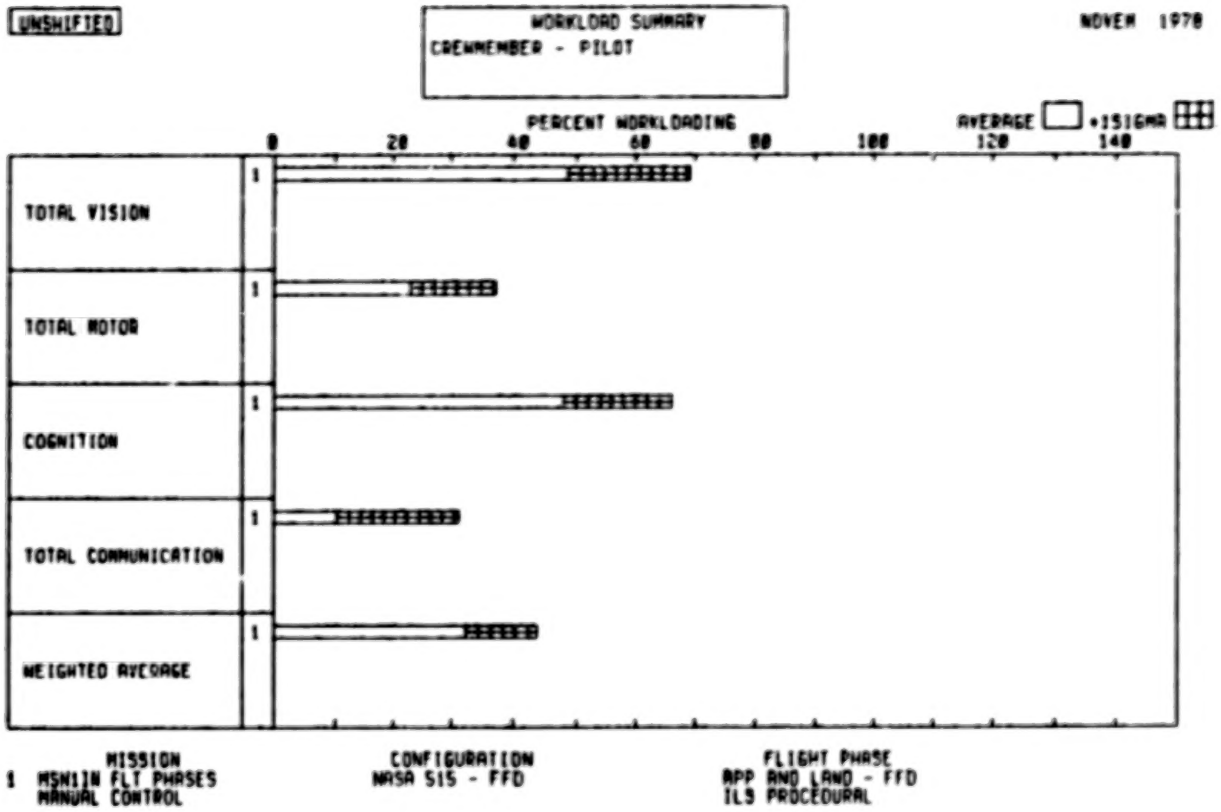
MISSION
MSN1IN FLT PHASES
MANUAL CONTROL




UNSHIFTED
WORKLOAD SUMMARY
CREWMEMBER - PILOT
NOVEM 1978
PERCENT WORKLOADING
AVERAGE
+1SIGMA
0
20
40
60
80
100
120
140
TOTAL VISION
TOTAL MOTOR
COGNITION
TOTAL COMMUNICATION
WEIGHTED AVERAGE
1
MISSION
1 MSN1IN FLT PHASES
MANUAL CONTROL
CONFIGURATION
NASA 515 - FFD
FLIGHT PHASE
NOISE ABATEMENT
CLIMB - NORMAL AWY-
FFD


WORKLOAD SUMMARY
CREWMEMBER - PILOT
NOVEM 1978
PERCENT WORKLOADING
AVERAGE
+1SIGMA
0
20
40
60
80
100
120
140
TOTAL VISION
TOTAL MOTOR
COGNITION
TOTAL COMMUNICATION
WEIGHTED AVERAGE
1
MISSION
1 MSN1N FLT PHASES
MANUAL CONTROL
CONFIGURATION
NASA 515 - FFD
FLIGHT PHASE
CRUISE - NORMAL ANY


UNSHIFTED
WORKLOAD SUMMARY
CREWMEMBER - PILOT
NOVEM 1978
PERCENT WORKLOADING
AVERAGE
+1SIGMA
0
20
40
60
80
100
120
140
TOTAL VISION
TOTAL MOTOR
COGNITION
TOTAL COMMUNICATION
WEIGHTED AVERAGE
1
MISSION
1 MSN1JN FLT PHASES
MANUAL CONTROL
CONFIGURATION
NASA 515 - FFD
FLIGHT PHASE
DESCENT - FFD


UNSHIFTED
WORKLOAD SUMMARY
CREWMEMBER - PILOT
NOVEM 1978
PERCENT WORKLOADING
AVERAGE
+1SIGMA
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100
120
140
TOTAL VISION
TOTAL MOTOR
COGNITION
TOTAL COMMUNICATION
WEIGHTED AVERAGE
1
MISSION
1 MSN11N FLT PHASES
MANUAL CONTROL
CONFIGURATION
NASA 515 - FFD
FLIGHT PHASE
APP AND LAND - FFD
ILS PROCEDURAL

UNSHIFTED

MISSION TIMELINE
MISSION - NSWIIN FLT PHASES
MANUAL CONTROL
CONFIGURATION - NASA 515 - FFD
FLIGHT PHASE - NOISE ABATEMENT
CLIMB - NORMAL ANY-
FFD
CREWMEMBER - PILOT

NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090001	CONTACT DEPARTURE CONTROL 125.7		
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
10 10	MON VHF-2 COMM AUDIO	6.00	
1P090001	MON RADIO COMM - (NASA 515, CONTACT ATLANTA DEPARTURE ON ONE TWO FIVE POINT	4.50	
4A 04	MANUALLY CONTROL A/C	10.00	
0A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON EI	10.00	
1P090024	SEVEN, GOOD-DAY SIR)	1.50	
090004	CROSS RWY 27R MIDDLE MARKER, TURN TO HDG 185		
090054	HEADING CHANGE PROC. -ATT CWS		
2K 14	MON EWSI DISPLAY	10.00	
2K 33	MON CURVED TREND VECTOR SYMBOLS	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3V 13	MONITOR MIDDLE MARKER ANNUN LT ON AND AUDIBLE SIGNAL	1.91	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	
4A 71	ACT FLT CONTROLS TO CHANGE HDG	2.00	
3S 12	SET HEADING CURSOR ON C1 USING HDG CURSOR CONT	4.13	
1B 18	MON VHF-2 COMM AUDIO	3.50	
1P090005	MON RADIO COMM-[NASA 515. ATLANTA DEPARTURE. ROGER. SQUAWK IDENT]	3.50	
090005	COMPLETE TURN - ON HDG 105		
090054	HEADING CHANGE PROC. -ATT CWS		
090003	FLIGHT INSTRUMENT SCAN - A		
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C1	10.00	
4A 71	ACT FLT CONTROLS TO CHANGE HDG	2.00	
2K 14	MON EHSI DISPLAY	10.00	
2K 33	MON CURVED TREND VECTOR SYMBOLS	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3R 19	MON PITCH ATTITUDE INDIC ON FDI	10.00	
1P090006	MON RADIO COMM - [NASA 515, RADAR CONTACT, SAY ALTITUDE, OVER]	3.20	
1B 19	MON VHF-2 COMM AUDIO	3.20	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090006	RETRACT FLAPS TO FLAPS 1. SET CLIMB THRUST.		
3A 01	MONITOR IDICATED AIRSPEED INDIC	2.37	
4A 64	MANUALLY CONTROL A/C	10.00	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
090003	FLIGHT INSTRUMENT SCAN - A		
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CJ	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
1P090022	CALL OUT -[FLAPS]	0.60	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
1P 07	MON VERBAL REPORT	0.00	
090003	FLIGHT INSTRUMENT SCAN - A		
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CJ	10.00	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
090003	FLIGHT INSTRUMENT SCAN - A		
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CJ	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9L 02	MON VERTICAL SPEED INDIC	10.00	I
090000	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
0A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	I
4A 04	MANUALLY CONTROL A/C	5.00	I
090009	FLIGHT INSTRUMENT SCAN - B		▽
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
9L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
090007	REACH 3000 FT ABOVE GROUND LEVEL. BEGIN ACCELERATION TO 250 KIAS. MAINTAIN 500-1000 FT/MIN CLIMB		▽
9H 02	MON CORR BARO ALT INDIC	0.60	I
4B 03	ACTUATE BOTH THROTTLES	2.34	I
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		▽
090003	FLIGHT INSTRUMENT SCAN - A		▽
4A 04	MANUALLY CONTROL A/C	10.00	I
0A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	I
9R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
9L 02	MON VERTICAL SPEED INDIC	10.00	I
9A 10	MONITOR AIRSPEED INDIC	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
090000	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
090009	FLIGHT INSTRUMENT SCAN - B		▽

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
39 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	5.00	I
4A 64	MANUALLY CONTROL A/C	5.00	I
0A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	I
090010	RECEIVE INSTRUCTIONS TO TURN TO HDG 070 TO INTERCEPT J37		▽
1B 19	MON VHF-2 COMM AUDIO	7.00	I
1P090025	MON RADIO COMM - [NASA 515, FOR VECTOR TO INTERCEPT JAY THIRTY SEVEN, TURN	9.00	I
090008	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
090009	FLIGHT INSTRUMENT SCAN - B		▽
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	5.00	I
4A 64	MANUALLY CONTROL A/C	5.00	I
0A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
1P090026	LEFT HEADING ZERO SEVEN ZERO, CLIMB AND MAINTAIN NINER THOUSAND, OVER]	4.00	I
090003	FLIGHT INSTRUMENT SCAN - A		▽
33 12	SET HEADING CURSOR ON C] USING HDG CURSOR CONT	4.13	I
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3L 02	MON VERTICAL SPEED INDIC	10.00	I·
3A 10	MONITOR AIRSPEED INDIC	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	10.00	I
4A 28	ACT FLT CONTROL TO CHANGE HDG	15.00	I
090009	FLIGHT INSTRUMENT SCAN - B		▽
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
090012	COMPLETE TURN - ON HDG 070		▽
090011	RETRACT FLAPS TO FLAPS 0.		▽
090016	CONTROL AIRCRAFT - C (SEC PROC)		▽
090017	FLIGHT INSTRUMENT SCAN - C		▽
3A 10	MONITOR AIRSPEED INDIC	30.00	D
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	30.00	D
4A 64	MANUALLY CONTROL A/C	30.00	D
0A 05	CAPT VIEW THRU NO.1 WINDOW	30.00	D
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	D
3L 02	MON VERTICAL SPEED INDIC	30.00	D
1P090022	CALL OUT -[FLAPS]	0.60	I
090013	REACH 250 KIAS		▽
1P 07	MON VERBAL REPORT	0.00	I
1P 03	ACKNOWLEGE	0.50	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090814	AFTER TAKEOFF CHECK-LIST		▽
1P090017	CALL OUT- [AFTER TAKEOFF CHECKLIST]	1.20	I
1P090018	CALL OUT- [START SWITCHES]	0.90	I
1P 06	MON VERBAL REPORT	0.50	I
090010	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽
3A 10	MONITOR AIRSPEED INDIC	60.00	□
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	□
1P 11	MON VERBAL REPORT	0.90	I
4A 65	MANUALLY CONTROL A/C	60.00	□
8A 05	CAPT VIEW THRU NO.1 WINDOW	60.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
3L 02	MON VERTICAL SPEED INDIC	60.00	□
1P 06	MON VERBAL REPORT	1.00	I
1P 10	MON VERBAL REPORT	0.60	I
1P 06	MON VERBAL REPORT	1.00	I
1P 09	MON VERBAL REPORT	1.90	I
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		▽
090003	FLIGHT INSTRUMENT SCAN - A		▽
090015	RECEIVE CLEARANCE TO CLIMB TO 12000 FT		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3A 10	MONITOR AIRSPEED INDIC	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
1B 10	MON VHF-2 COMM AUDIO	3.50	I
1P090029	MON RADIO COMM - [NASA 515, CLIMB AND MAINTAIN ONE TWO THOUSAND, OVER]	3.50	I
4A 64	MANUALLY CONTROL A/C	10.00	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	I
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
1P 04	MON VERBAL REPORT	2.00	I
000002	CONTROL AIRCRAFT - A (10 SEC PROC)		▽
000003	FLIGHT INSTRUMENT SCAN - A		▽
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3A 10	MONITOR AIRSPEED INDIC	10.00	I
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4A 64	MANUALLY CONTROL A/C	10.00	I
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	I
000020	REACH 10000FT. BEGIN TURN TO HDG 053.		▽
000003	FLIGHT INSTRUMENT SCAN - A		▽
3A 10	MONITOR AIRSPEED INDIC	10.00	I
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4A 20	ACT FLT CONTROL TO CHANGE HDG	20.00	I
8A 08	CAPT VIEW THRU NO 1	20.00	I
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
3L 02	MON VERTICAL SPEED INDIC	10.00	I
000000	CONTROL AIRCRAFT - A (5 SEC PROC)		▽
4A 64	MANUALLY CONTROL A/C	5.00	I
8A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090010	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽
8A 05	CAPT VIEW THRU NO.1 WINDOW	60.00	□
9R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
3L 02	MON VERTICAL SPEED INDIC	60.00	□
9A 10	MONITOR AIRSPEED INDIC	60.00	□
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON C]	60.00	□
4A 65	MANUALLY CONTROL A/C	60.00	□
090023	HANDOFF TO ATLANTA EAST DEPARTURE SECTOR. -123.95		▽
1P090000	MON RADIO COMM- (NASA 515, CLIMB AND MAINTAIN FLIGHT LVL 230. CONTACT ATLANTA	3.10	I
1B 19	MON VHF-2 COMM AUDIO	6.20	I
1P090009	CENTER ON ONE TWO THREE POINT NINER FIVE. OVER)	3.10	I
1B 10	MON VHF-2 COMM AUDIO	3.50	I
1P090014	MON RADIO COMM - [NASA 515, THIS IS ATLANTA CENTER, ROGER. SQUAWK IDENT]	3.50	I
1B 10	MON VHF-2 COMM AUDIO	3.50	I
1P090015	MON RADIO COMM - [NASA 515, RADAR CONTACT. REPORT LEAVING FL210.OVER]	3.50	I
090010	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽
9A 10	MONITOR AIRSPEED INDIC	60.00	□
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON C]	60.00	□
4A 65	MANUALLY CONTROL A/C	60.00	□

0. 500. 1000. 1500. 2000. 2500. 3000.

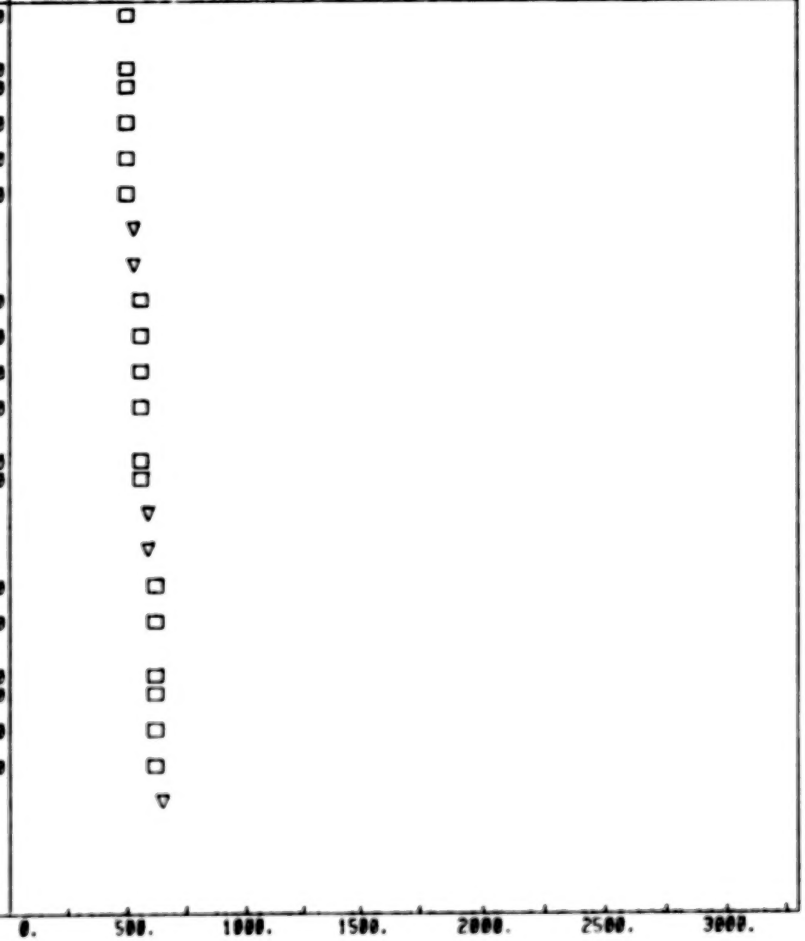
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
8A 05	CAPT VIEW THRU NO.1 WINDOW	60.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
3L 02	MON VERTICAL SPEED INDIC	60.00	□
090818	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090819	FLIGHT INSTRUMENT SCAN - D		▽
4A 65	MANUALLY CONTROL A/C	60.00	□
8A 05	CAPT VIEW THRU NO.1 WINDOW	60.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
3L 02	MON VERTICAL SPEED INDIC	60.00	□
9A 10	MONITOR AIRSPEED INDIC	60.00	□
99 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON C]	60.00	□
090825	RECEIVE NOTICE OF CONFLICTING TRAFFIC		▽
1B 19	MON VHF-2 COMM AUDIO	10.00	▯
1P090831	MON RADIO COMM - [NASA 515, MAINTAIN FLIGHT LEVEL ONE EIGHT ZERO. TRAFFIC	3.75	▯
1P090832	TWELVE O<CLOCK, FOUR MILES, NORTHEAST BOUND, C-130 ASSIGND FLIGHT LEVEL ONE	5.00	▯
1P090833	NINER ZERO, OVER)	1.25	▯
090816	CONTROL AIRCRAFT - C (SEC PROC)		▽
090817	FLIGHT INSTRUMENT SCAN - C		▽
3L 02	MON VERTICAL SPEED INDIC	30.00	▯
3A 10	MONITOR AIRSPEED INDIC	30.00	▯
99 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	30.00	▯
4A 64	MANUALLY CONTROL A/C	30.00	▯

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
8A 05	CAPT VIEW THRU NO.1 WINDOW	30.00	D
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	D
090026	BEGIN 500 FT/MIN RATE OF CLIMB		▽
140023	REPORT 1000 FT TO LEVEL OFF		▽
1P 11	MON VERBAL REPORT	1.70	I
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		▽
090003	FLIGHT INSTRUMENT SCAN - A		▽
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	I
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3A 10	MONITOR AIRSPEED INDIC	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4A 64	MANUALLY CONTROL A/C	10.00	I
090008	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
090009	FLIGHT INSTRUMENT SCAN - B		▽
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
4A 64	MANUALLY CONTROL A/C	5.00	I
8A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
090027	LEVEL OFF AT 10000		▽
090010	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00
4A 65	MANUALLY CONTROL A/C	60.00
8A 85	CAPT VIEW THRU NO.1 WINDOW	60.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00
3L 82	MON VERTICAL SPEED INDIC	60.00
3A 10	MONITOR AIRSPEED INDIC	60.00
090818	CONTROL AIRCRAFT - D (60 SEC PROC)	
090819	FLIGHT INSTRUMENT SCAN - D	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00
3L 82	MON VERTICAL SPEED INDIC	60.00
3A 10	MONITOR AIRSPEED INDIC	60.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00
4A 65	MANUALLY CONTROL A/C	60.00
8A 85	CAPT VIEW THRU NO.1 WINDOW	60.00
090818	CONTROL AIRCRAFT - D (60 SEC PROC)	
090819	FLIGHT INSTRUMENT SCAN - D	
3A 10	MONITOR AIRSPEED INDIC	60.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00
4A 65	MANUALLY CONTROL A/C	60.00
8A 85	CAPT VIEW THRU NO.1 WINDOW	60.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00
3L 82	MON VERTICAL SPEED INDIC	60.00
090816	CONTROL AIRCRAFT - D (SEC PROC)	



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090817	FLIGHT INSTRUMENT SCAN - C		▽
4A 04	MANUALLY CONTROL A/C	30.00	0
8A 05	CAPT VIEW THRU NO.1 WINDOW	30.00	0
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	0
3L 02	MON VERTICAL SPEED INDIC	30.00	0
3A 10	MONITOR AIRSPEED INDIC	30.00	0
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	30.00	0
090816	CONTROL AIRCRAFT - C (60 SEC PROC)		▽
090817	FLIGHT INSTRUMENT SCAN - C		▽
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	0
3L 02	MON VERTICAL SPEED INDIC	30.00	0
3A 10	MONITOR AIRSPEED INDIC	30.00	0
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	30.00	0
4A 04	MANUALLY CONTROL A/C	30.00	0
8A 05	CAPT VIEW THRU NO.1 WINDOW	30.00	0
090820	RECEIVE CLEARANCE TO RESUME CLIMB TO CRUISE ALTITUDE		▽
1B 19	MON VHF-2 COMM AUDIO	7.00	I
1P090036	MON RADIO COMM - [NASA 515, CLEAR OF TRAFFIC, CLIMB AND MAINTAIN FLIGHT	3.00	I
1P090037	LEVEL TWO THREE ZERO . REPORT LEAVING FLIGHT LEVEL TWO ONE ZERO, OVER]	4.00	I
090818	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090819	FLIGHT INSTRUMENT SCAN - D		▽

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	
4A 65	MANUALLY CONTROL A/C	60.00	
BA 85	CAPT VIEW THRU NO.1 WINDOW	60.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	
3L 82	MON VERTICAL SPEED INDIC	60.00	
3A 18	MONITOR AIRSPEED INDIC	60.00	
898818	CONTROL AIRCRAFT - D (60 SEC PROC)		
898819	FLIGHT INSTRUMENT SCAN - D		
BA 85	CAPT VIEW THRU NO.1 WINDOW	60.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	
3L 82	MON VERTICAL SPEED INDIC	60.00	
3A 18	MONITOR AIRSPEED INDIC	60.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	
4A 65	MANUALLY CONTROL A/C	60.00	
898829	CLIMB THRU 23000 FT. HANDOFF TO SPARTANBURG HIGH SECTOR -133.7		
1B 19	MON VHF-2 COMM AUDIO	7.00	
1P898841	MON RADIO COMM - [NASA 515, ROGER, CLIMB AND MAINTAIN FLIGHT LEVEL THREE ONE ZERO. CONTACT CENTER ON ONE THREE THREE POINT SEVEN, OVER]	3.50	
1P898842		3.50	
1B 19	MON VHF-2 COMM AUDIO	7.00	
1P898847	MON RADIO COMM - [NASA 515, ATLANTA CENTER, ROGER, SQUAWK IDENT, REPORT	3.70	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090016	CONTROL AIRCRAFT - C (SEC PROC)		▽
090017	FLIGHT INSTRUMENT SCAN - C		▽
3A 10	MONITOR AIRSPEED INDIC	30.00	□
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	30.00	□
4A 64	MANUALLY CONTROL A/C	30.00	□
8A 85	CAPT VIEW THRU NO.1 WINDOW	30.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	□
3L 82	MON VERTICAL SPEED INDIC	30.00	□
1P090048	LEAVING FLIGHT LEVEL TWO EIGHT ZERO, OVER)	3.30	▮
090030	BEGIN MACH 0.65 SPEED SCHEDULE		▽
090018	CONTROL AIRCRAFT - C (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽
3A 10	MONITOR AIRSPEED INDIC	60.00	□
35 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	□
3F 01	MON MACH NO INDIC	2.37	▮
4B 03	ACTUATE BOTH THROTTLES	2.82	▮
4A 65	MANUALLY CONTROL A/C	60.00	□
8A 85	CAPT VIEW THRU NO.1 WINDOW	60.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
3L 82	MON VERTICAL SPEED INDIC	60.00	□
090018	CONTROL AIRCRAFT - C (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽
3L 82	MON VERTICAL SPEED INDIC	60.00	□

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A 10	MONITOR AIRSPEED INDIC	60.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	
4A 65	MANUALLY CONTROL A/C	60.00	
8A 85	CAPT VIEW THRU NO.1 WINDOW	60.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	
090816	CONTROL AIRCRAFT - C (SEC PROC)		
090817	FLIGHT INSTRUMENT SCAN - C		
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	30.00	
4A 64	MANUALLY CONTROL A/C	30.00	
8A 85	CAPT VIEW THRU NO.1 WINDOW	30.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	
3L 02	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
090831	CLIMB THRU 28000 FT, REPORT TO ATC.		
1B 20	MON VHF-2 COMM AUDIO	5.00	
1P090051	MON RADIO COMM- (NASA 515, ROGER, CLIMB AND MAINTAIN FLIGHT LEVEL TWO	3.50	
1P090052	NINER ZERO, OVER)	1.50	
090832	REDUCE RATE OF CLIMB TO 500 FT/MIN		
4B 03	ACTUATE BOTH THROTTLES	2.44	
3L 01	MON VERTICAL SPEED INDIC	2.24	
140823	REPORT 1000 FT TO LEVEL OFF		
090816	CONTROL AIRCRAFT - C (SEC PROC)		
090817	FLIGHT INSTRUMENT SCAN - C		

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9L 02	MON VERTICAL SPEED INDIC	30.00	D
3A 10	MONITOR AIRSPEED INDIC	30.00	D
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	30.00	D
4A 64	MANUALLY CONTROL A/C	30.00	D
8A 05	CAPT VIEW THRU NO.1 WINDOW	30.00	D
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	D
1P 11	MON VERBAL REPORT	1.70	I
090033	TUNE AND MONITOR SPARTANBURG VOR -115.7		▽
1P 12	MON VERBAL REPORT	2.50	I
090008	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
090009	FLIGHT INSTRUMENT SCAN - B		▽
8A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
4A 64	MANUALLY CONTROL A/C	5.00	I
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.25	I
090034	LEVEL OFF AT 29000 FT. ACCELERATE TO LONG RANGE CRUISE SPEED -MACH 0.67		▽
4A 64	MANUALLY CONTROL A/C	15.00	I
5H 06	MON ALTIMETER	10.00	I
4A 64	MANUALLY CONTROL A/C	5.00	I
3F 01	MON MACH NO INDIC	2.37	I
4B 03	ACTUATE BOTH THROTTLES	2.82	I
090035	REACH MACH 0.67		▽
3F 01	MON MACH NO INDIC	2.37	I

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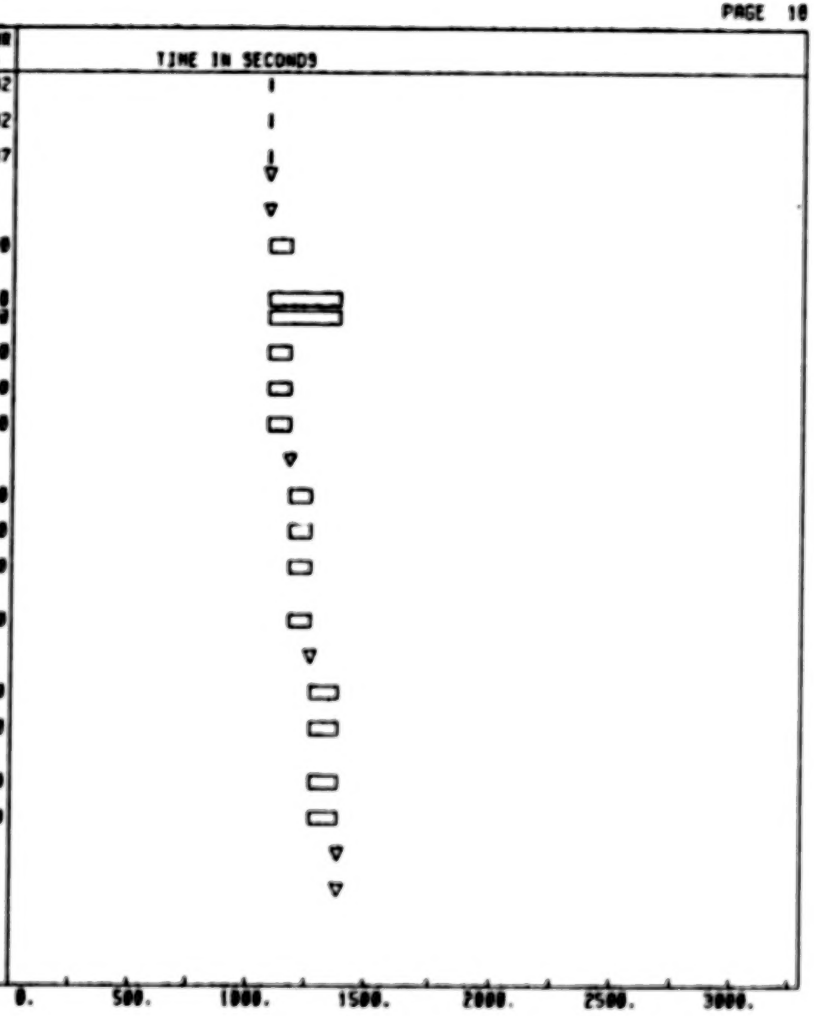
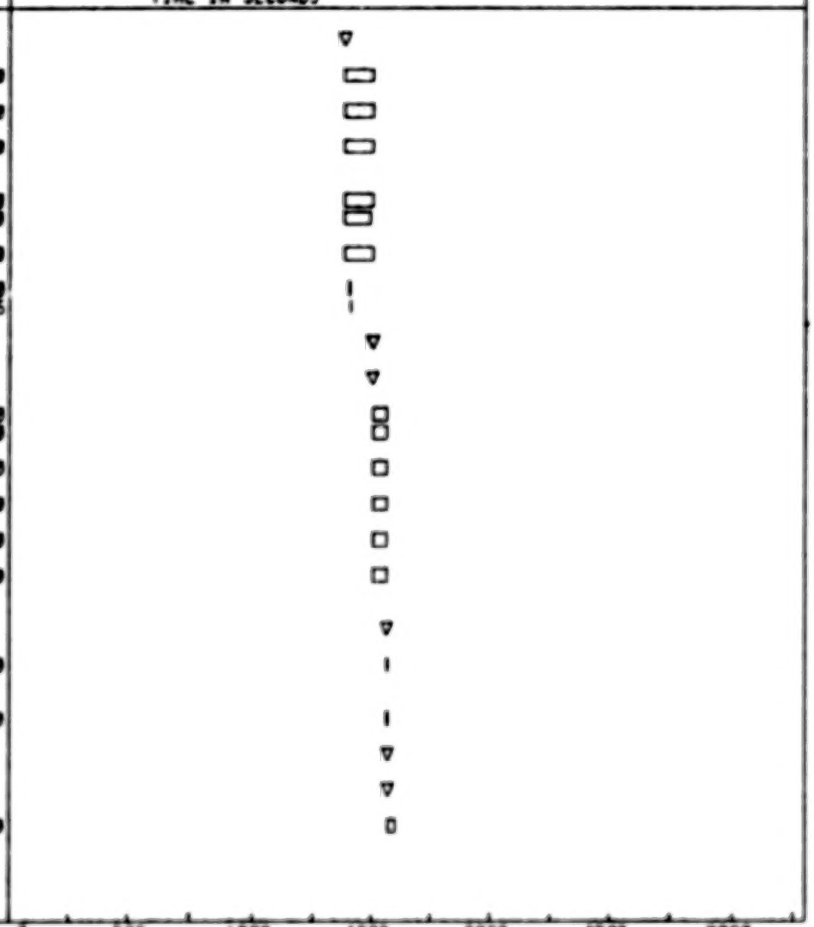
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
4B 03	ACTUATE BOTH THROTTLES	2.82
4B 03	ACTUATE BOTH THROTTLES	2.82
3F 01	MON MACH NO INDIC	2.37
090036	CONTROL AIRCRAFT - E (0 SEC PROC)	
090037	FLIGHT INSTRUMENT SCAN - E	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
4A 65	MANUALLY CONTROL A/C	300.00
0A 06	CAPT VIEW THRU NO.1 WINDOW	300.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
3L 03	MON VERTICAL SPEED INDIC	90.00
3A 11	MONITOR AIRSPEED INDIC	90.00
090037	FLIGHT INSTRUMENT SCAN - E	
3L 03	MON VERTICAL SPEED INDIC	90.00
3A 11	MONITOR AIRSPEED INDIC	90.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
090039	FLIGHT INSTRUMENT SCAN - F	
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
3L 03	MON VERTICAL SPEED INDIC	120.00
090038	CONTROL AIRCRAFT - F (120 SEC PROC)	
090039	FLIGHT INSTRUMENT SCAN - F	



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
090040	TUNE TO GORDONVILLE VOR -115.6	
3L 03	MON VERTICAL SPEED INDIC	120.00
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
4A 65	MANUALLY CONTROL A/C	120.00
0A 06	CAPT VIEW THRU NO.1 WINDOW	110.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
1P 12	MON VERBAL REPORT	2.50
5G 04	MON VOR POINTER NO.1 ON VOR/BMI 1 INDIC	2.25
090018	CONTROL AIRCRAFT - D (60 SEC PROC)	
090019	FLIGHT INSTRUMENT SCAN - D	
4A 65	MANUALLY CONTROL A/C	60.00
0A 05	CAPT VIEW THRU NO.1 WINDOW	60.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00
3L 02	MON VERTICAL SPEED INDIC	60.00
3A 10	MONITOR AIRSPEED INDIC	60.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00
090041	CROSS SPARTANBURG VOR, TURN TO HDG 047	
3S 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00
4A 28	ACT FLT CONTROL TO CHANGE HDG	5.00
090016	CONTROL AIRCRAFT - D (60 SEC PROC)	
090017	FLIGHT INSTRUMENT SCAN - C	
3L 02	MON VERTICAL SPEED INDIC	30.00



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A 10	MONITOR AIRSPEED INDIC	30.00	
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	30.00	
4A 64	MANUALLY CONTROL A/C	30.00	
8A 05	CAPT VIEW THRU NO.1 WINDOW	30.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
090042	TURN COMPLETE - ON HDG 047.		
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		

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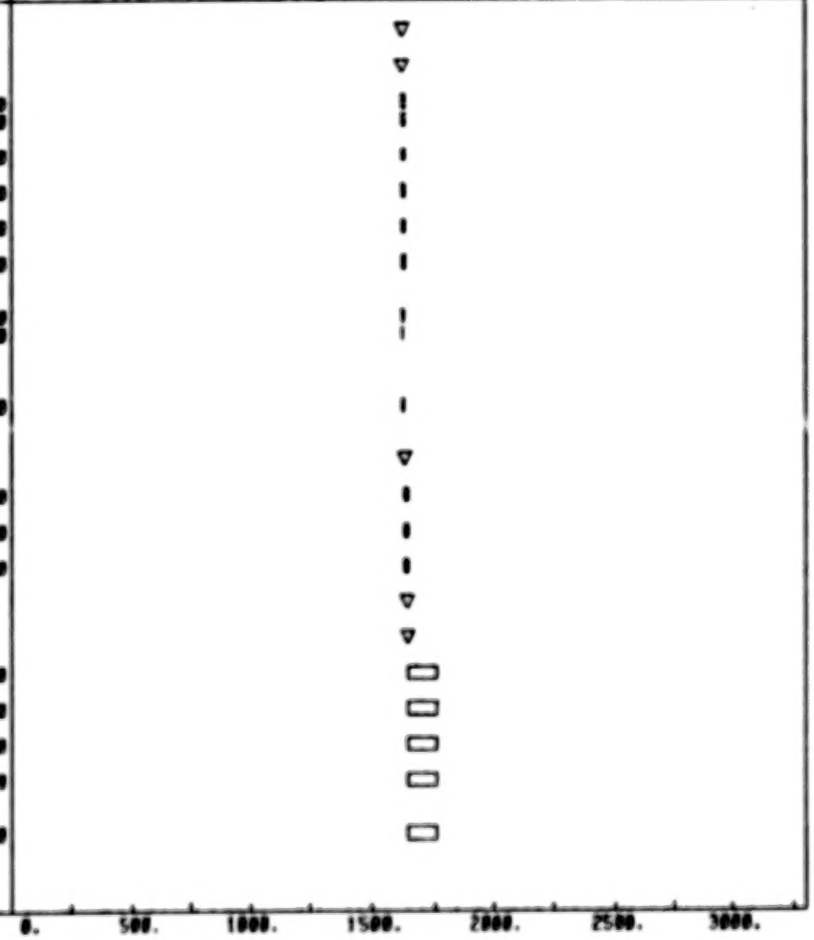
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
090083	FLIGHT INSTRUMENT SCAN - A	
090043	RECEIVE CLEARANCE TO CLIMB TO 33000 FT	
4A 04	MANUALLY CONTROL A/C	10.00
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00
5L 02	MON VERTICAL SPEED INDIC	10.00
3A 10	MONITOR AIRSPEED INDIC	10.00
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00
1B 19	MON VHF-2 COMM AUDIO	7.00
1P090054	MON RADIO COMM - (WASA 515, CLIMB AND MAINTAIN FLIGHT LVL THREE THREE ZERO.	3.50
1P090055	CONTACT CENTER ON ONE THREE FOUR POINT FIVE FIVE, OVER)	3.50
090044	BEGIN CLIMB TO 33000 FT.	
5L 02	MON VERTICAL SPEED INDIC	10.00
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00
090038	CONTROL AIRCRAFT - F (120 SEC PROC)	
090039	FLIGHT INSTRUMENT SCAN - F	
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
5L 03	MON VERTICAL SPEED INDIC	120.00
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
4A 65	MANUALLY CONTROL A/C	120.00



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
BA 06	CAPT VIEW THRU NO.1 WINDOW	110.00	
1P090060	MON RADIO COMM - [NASA 515, ATLANTA CENTER, ROGER, SQUAWK IDENT	3.50	
1B 18	MON VHF-2 COMM AUDIO	3.50	
1P090061	MON RADIO COMM - [NASA 515, RADAR CONTACT, REPORT LEVEL AT FLIGHT	3.50	
1B 28	MON VHF-2 COMM AUDIO	5.50	
1P090062	LEVEL THREE THREE ZERO, OVER]	2.00	
090045	CLIMB THRU 32000 FT. BEGIN 500 FT/MIN RATE OF CLIMB.		
1P 11	MON VERBAL REPORT	1.70	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
6A 64	MANUALLY CONTROL A/C	10.00	
BA 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
BA 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4A 04	MANUALLY CONTROL A/C	10.00	I
090008	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
090009	FLIGHT INSTRUMENT SCAN - B		▽
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
4A 04	MANUALLY CONTROL A/C	5.00	I
0A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I

0. 500. 1000. 1500. 2000. 2500. 3000.

MISSION TIMELINE
MISSION - RSRIIN FLT PHASES
MANUAL CONTROL
CONFIGURATION - NASA 515 - FFD
FLIGHT PHASE -CRUISE - NORMAL RWY

CREWMEMBER - PILOT

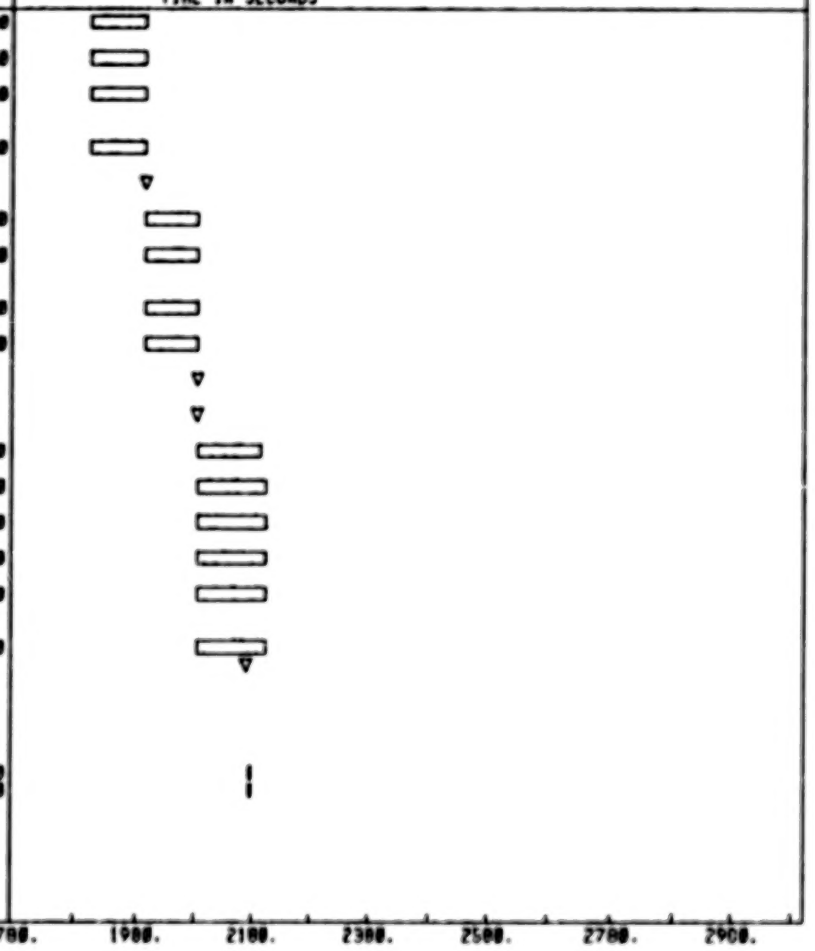
NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
110001	REACH 33000 FT -EN ROUTE CRUISE ALTI-TUDE , BEGIN ACCEL-ERATION TO LONG RANGE CRUISE SPEED -MACH 0.71	
090036	CONTROL AIRCRAFT - E (0 SEC PROC)	
090039	FLIGHT INSTRUMENT SCAN - F	
110002	REPORT REACHING 33000 FT.	
4B 03	ACTUATE BOTH THROTTLES	2.82
3F 01	MON MACH NO INDIC	2.37
4A 05	MANUALLY CONTROL A/C	300.00
0A 06	CAPT VIEW THRU NO.1 WINDOW	300.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
3L 03	MON VERTICAL SPEED INDIC	120.00
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
1B 20	MON VHF-2 COMM AUDIO	1.70
1P110003	MON RADIO COMM - (NASA 515, ROGER)	1.70
110003	REACH MACH 0.71	
3F 01	MON MACH NO INDIC	2.37
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73
090037	FLIGHT INSTRUMENT SCAN - E	

TIME IN SECONDS

1700. 1900. 2100. 2300. 2500. 2700. 2900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
3L 03	MON VERTICAL SPEED INDIC	90.00
3A 11	MONITOR AIRSPEED INDIC	90.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
090037	FLIGHT INSTRUMENT SCAN - E	
9A 11	MONITOR AIRSPEED INDIC	90.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
9R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
3L 03	MON VERTICAL SPEED INDIC	90.00
090038	CONTROL AIRCRAFT - F (120 SEC PROC)	
090039	FLIGHT INSTRUMENT SCAN - F	
8A 06	CAPT VIEW THRU NO.1 WINDOW	110.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
9L 03	MON VERTICAL SPEED INDIC	120.00
9A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
4A 65 110004	MANUALLY CONTROL A/C PILOT REQUESTS RETURN TO ATLANTA . CONTROLLER COORDINATES WITH ADJACENT SECTORS FOR RETURN VECTORS.	120.00
1B 20	MON VHF-2 COMM AUDIO	3.00
1P110006	MON RADIO COMM - (NASA 515, ROGER, STANDBY FOR INSTRUCTIONS)	3.00

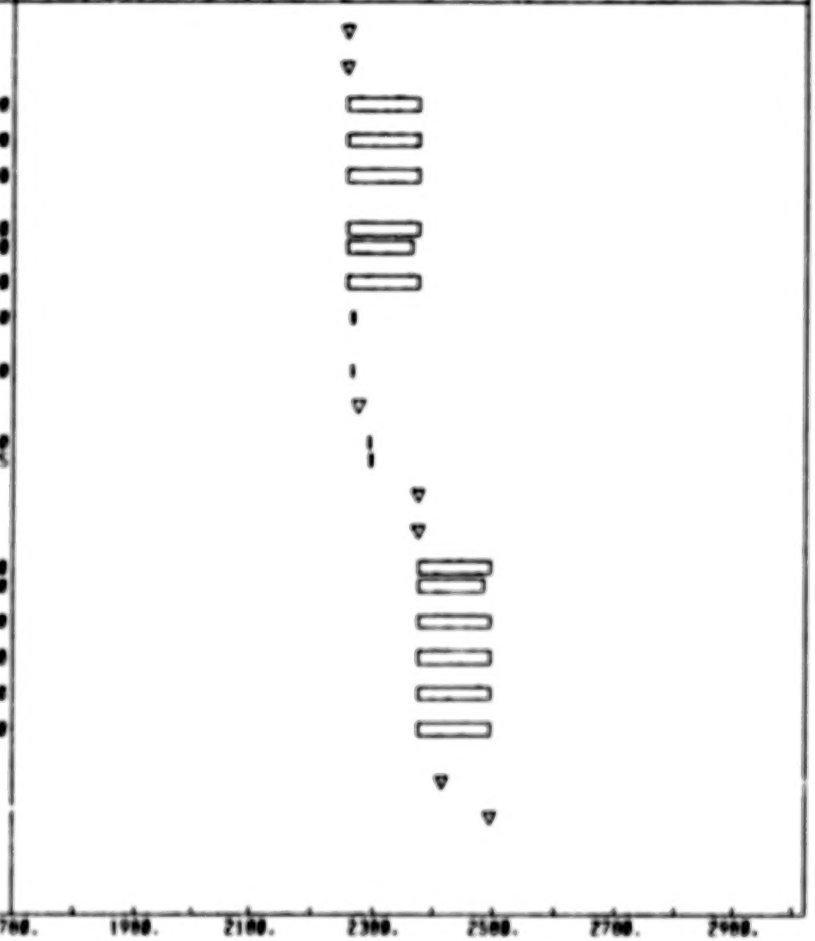


CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
090038	CONTROL AIRCRAFT - F (120 SEC PROC)	
090039	FLIGHT INSTRUMENT SCAN - F	
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
4A 05	MANUALLY CONTROL A/C	120.00
0A 06	CAPT VIEW THRU NO.1 WINDOW	110.00
3P 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
3L 03	MON VERTICAL SPEED INDIC	120.00
110005	RECEIVE VECTORS FOR THE LANIER SIX STAR, PULASKI TRANSITION	
1B 36	MONITOR VHF-2 COMM AUDIO	11.00
1P110007	NON RADIO COMM - (NASA 515, FOR VECTOR TO INTERCEPT LANIER SIX ARRIVAL, PULASKI TRANSITION, TURN LEFT HEADING TWO SEVEN ZERO, CONTACT ATLANTA CENTER ON ONE THREE FIVE POINT THREE FIVE, OVER)	3.66
1P110008		4.06
1P110009		2.44
1B 19	MON VHF-2 COMM AUDIO	7.00
110006	BEGIN TURN TO HDG 270	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00
3L 02	MON VERTICAL SPEED INDIC	10.00
4A 20	ACT FLT CONTROL TO CHANGE HDG	10.00
110007	TUNE RADIO ULTRA HIGH SECTOR -135.35	
3S 12	SET HEADING CURSOR ON CI USING HDG CURSOR CONT	4.13

TIME IN SECONDS

1700. 1900. 2100. 2300. 2500. 2700. 2900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090039	CONTROL AIRCRAFT - F (120 SEC PROC)		
090039	FLIGHT INSTRUMENT SCAN - F		
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00	
4A 65	MANUALLY CONTROL A/C	120.00	
8A 06	CAPT VIEW THRU NO.1 WINDOW	110.00	
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00	
1P110014	MON RADIO COMM - (NASA SIS, ROGER, SQUARE IDENT)	2.50	
1B 36	MONITOR VHF-2 COMM AUDIO	2.00	
110000	SET NAV-1 TO PULASKI VOR		
1P 12	MON VERBAL REPORT	2.50	
5C 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.25	
090038	CONTROL AIRCRAFT - F (120 SEC PROC)		
090039	FLIGHT INSTRUMENT SCAN - F		
4A 65	MANUALLY CONTROL A/C	120.00	
8A 06	CAPT VIEW THRU NO.1 WINDOW	110.00	
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00	
110009	TURN COMPLETE - ON HDG 270		
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090003	FLIGHT INSTRUMENT SCAN - A		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	D
3A 10	MONITOR AIRSPEED INDIC	10.00	D
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	D
4A 04	MANUALLY CONTROL A/C	10.00	D
0A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	D
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	D
110010	RECEIVE INSTRUCTIONS TO DESCEND TO 31000 FT		▽
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		▽
090003	FLIGHT INSTRUMENT SCAN - A		▽
35 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	D
1D 19	MON VHF-2 COMM AUDIO	7.00	I
1P110016	MON RADIO COMM - (WASA SIX, DESCEND AND MAINTAIN FLIGHT LEVEL THREE ONE ZERO)	3.50	I
4A 04	MANUALLY CONTROL A/C	10.00	D
0A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	D
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	D
3L 02	MON VERTICAL SPEED INDIC	10.00	D
3A 10	MONITOR AIRSPEED INDIC	10.00	D
1P110017	, CONTACT CENTER ON ONE THREE TWO POINT SEVEN FIVE, OVER)	3.50	I
090008	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
090009	FLIGHT INSTRUMENT SCAN - B		▽
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I

1700. 1900. 2100. 2300. 2500. 2700. 2900.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3L	02	MON VERTICAL SPEED INDIC	5.00	I
3A	10	MONITOR AIRSPEED INDIC	5.00	I
35	01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C)	5.00	I
6A	6A	MANUALLY CONTROL A/C	5.00	I
8A	05	CAPT VIEW THRU NO.1 WINDOW	5.00	I

1700. 1900. 2100. 2300. 2500. 2700. 2900.

UNSHIFTED

MISSION TIMELINE
MISSION - KSNIIN FLT PHASES
KANUAL CONTROL
CONFIGURATION - NASA 515 - FFD
FLIGHT PHASE -DESCENT - FFD

CREWMEMBER - PILOT

NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
140002	BEGIN DESCENT TO 31000FT	
140001	CONTACT PULASKI HIGH SECTOR -132.75	
140003	ALTITUDE CHANGE PROC	
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00
3L 02	MON VERTICAL SPEED INDIC	10.00
3W 02	MON CDRR BARO ALT INDIC	0.60
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00
4B 03	ACTUATE BOTH THROTTLES	2.02
3F 01	MON MACH NO INDIC	2.37
090038	CONTROL AIRCRAFT - F (120 SEC PROC)	
090039	FLIGHT INSTRUMENT SCAN - F	
3L 03	MON VERTICAL SPEED INDIC	120.00
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
4A 05	MANUALLY CONTROL A/C	120.00
BA 06	CAPT VIEW THRU NO.1 WINDOW	110.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
1P140003	MON RADIO COMM - (NASA 515, ATLANTA CENTER, ROGER, SQUAWK IDENT)	3.00
1S 20	MON VHF-2 COMM AUDIO	3.00

TIME IN SECONDS

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P140004	MON RADIO COMM - [NASA 515, RADAR CONTACT]	2.00	
1B 56	MONITOR VHF-2 COMM AUDIO	2.00	
090008	CONTROL AIRCRAFT - B (5 SEC PROC)		
090009	FLIGHT INSTRUMENT SCAN - B		
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	
4A 64	MANUALLY CONTROL A/C	5.00	
8A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	
3L 02	MON VERTICAL SPEED INDIC	5.00	
3A 10	MONITOR AIRSPEED INDIC	5.00	
140004	LEVEL OFF AT 31000 FT		
140003	ALTITUDE CHANGE PROC		
3L 02	MON VERTICAL SPEED INDIC	10.00	
3H 02	MON CORR BARO ALT INDIC	0.60	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
4B 03	ACTUATE BOTH THROTTLES	2.82	
3F 01	MON MACH NO INDIC	2.37	
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00	
090018	CONTROL AIRCRAFT - D (60 SEC PROC)		
090019	FLIGHT INSTRUMENT SCAN - D		
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	
4A 65	MANUALLY CONTROL A/C	60.00	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
8A 05	CAPT VIEW THRU NO.1 WINDOW	60.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
140005	RECEIVE VECTOR TO INTERCEPT PULASKI 225 RADIAL		▽
1P14#005	MON RADIO COMM - (NASA 515, FOR VECTOR TO INTERCEPT PULASKI TWO TWO FIVE	3.27	I
1B 36	MONITOR VHF-2 COMM AUDIO	12.00	I
1P140006	RADIAL, TURN LEFT HEADING TWO FOUR ZERO. CLEARED TO THE	4.36	I
1P140007	ATLANTA INTERNATIONAL AIRPORT VIA THE LANIER SIX ARRIVAL. PULASKI TRANSITION, OVER)	4.36	I
140006	TURN TO HDG 240		▽
140007	HEADING CHANGE PROC.		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3S 11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR CONT	4.92	I
3R 58	MON A/C ATTITUDE RELATIVE TO ROLL COMMAND ON FDI	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	I
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		▽
090003	FLIGHT INSTRUMENT SCAN - A		▽
9R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
3L 02	MON VERTICAL SPEED INDIC	10.00	I

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
4A 04	MANUALLY CONTROL A/C	10.00	
0A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
090038	CONTROL AIRCRAFT - F (120 SEC PROC)		
090039	FLIGHT INSTRUMENT SCAN - F		
3A 11	MONITOR AIRSPEED INDIC	120.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00	
4A 05	MANUALLY CONTROL A/C	120.00	
0A 06	CAPT VIEW THRU NO.1 WINDOW	110.00	
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
140000	TURN COMPLETE - ON HDG 240		
140009	BEGIN TURN TO PULASKI 225 RADIAL		
140007	HEADING CHANGE PROC.		
3R 58	MON A/C ATTITUDE RELATIVE TO ROLL COMMAND ON FDI	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
4A 20	ACT FLT CONTROL TO CHANGE HDG	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3S 11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR CONT	4.92	
090036	CONTROL AIRCRAFT - E (0 SEC PROC)		

2600. 3100. 3600. 4100. 4600. 5100. 5600.

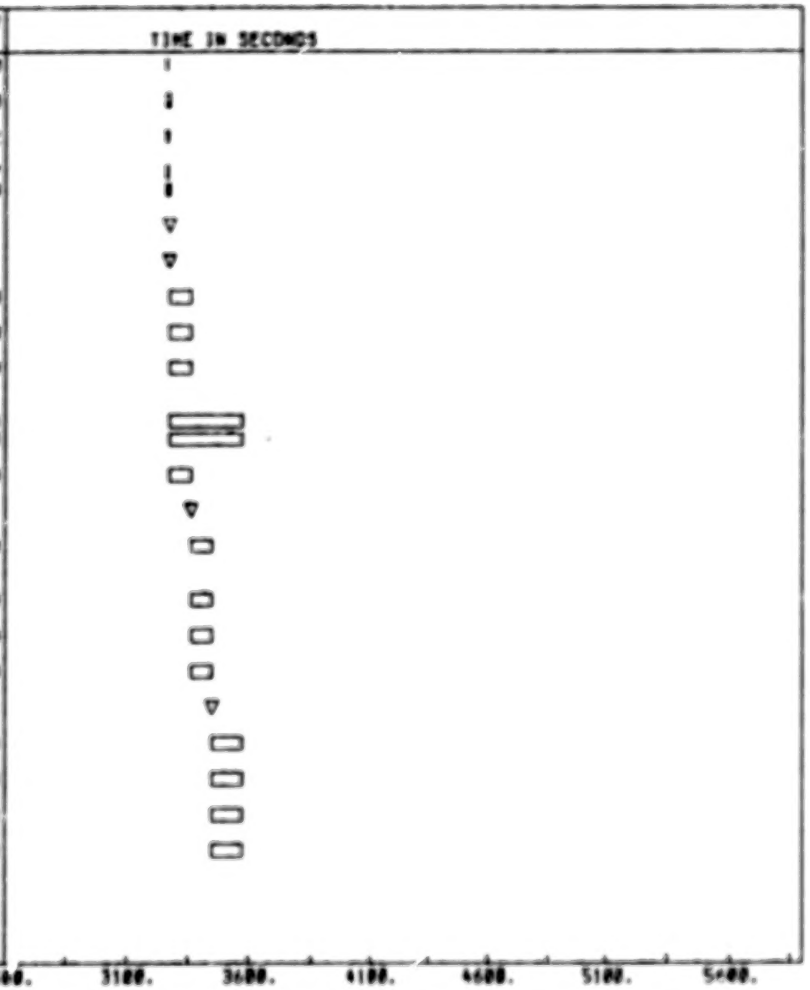
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090037	FLIGHT INSTRUMENT SCAN - E		
5L 03	MON VERTICAL SPEED INDIC	90.00	
3A 11	MONITOR AIRSPEED INDIC	90.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00	
4A 05	MANUALLY CONTROL A/C	300.00	
0A 06	CAPT VIEW THRU NO.1 WINDOW	300.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00	
140010	TURN COMPLETE - ON HDG 225		
140011	SET NAV-2 TO TOCCOA VOR -109.0		
5G 05	MON VOR POINTER NO.2 ON VOR/DME 1 INDIC	2.25	
090037	FLIGHT INSTRUMENT SCAN - E		
5L 03	MON VERTICAL SPEED INDIC	90.00	
3A 11	MONITOR AIRSPEED INDIC	90.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00	
140012	HANDOFF TO LANIER HIGH SECTOR		
1B 18	MON VHF-2 COMM AUDIO	3.50	
1P140010	MON RADIO COMM - (NASA 515, CONTACT CENTER ON ONE THREE TWO POINT EIGHT,OVER	3.50	
1P140013	MON RADIO COMM - (NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT)	3.00	
1B 28	MON VHF-2 COMM AUDIO	3.00	
1P140014	MON RADIO COMM- (NASA 515, RADAR CONTACT)	2.00	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B 36	MONITOR VHF-2 COMM AUDIO	2.00	
090039	FLIGHT INSTRUMENT SCAN - F		
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00	
5R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
140013	RECEIVE INSTRUCTIONS TO DESCEND TO 24000 FT		
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
1B 36	MONITOR VHF-2 COMM AUDIO	6.50	
1P140015	MON RADIO COMM - (WASA SIS, DESCEND AND MAINTAIN FLIGHT LEVEL TWO FOUR ZERO.	3.90	
4A 64	MANUALLY CONTROL A/C	10.00	
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
5R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
1P140016	REPORT LEAVING FLT LEVEL TWO SIX ZERO. OVER)	2.60	
140014	BEGIN MACH 0.75 DESCENT		
140003	ALTITUDE CHANGE PROC		
3L 02	MON VERTICAL SPEED INDIC	10.00	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
3H 02	MON CDR BARO ALT INDIC	0.02
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00
4B 03	ACTUATE BOTH THROTTLES	2.02
3F 01	MON MACH NO INDIC	2.37
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00
090036	CONTROL AIRCRAFT - E (0 SEL PROC)	
090037	FLIGHT INSTRUMENT SCAN - E	
3L 03	MON VERTICAL SPEED INDIC	90.00
3A 11	MONITOR AIRSPEED INDIC	90.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
4A 65	MANUALLY CONTROL A/C	300.00
8A 06	CAPT VIEW THRU NO.1 WINDOW	300.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
090037	FLIGHT INSTRUMENT SCAN - E	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
3L 03	MON VERTICAL SPEED INDIC	90.00
3A 11	MONITOR AIRSPEED INDIC	90.00
090039	FLIGHT INSTRUMENT SCAN - F	
3L 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
3L 03	MON VERTICAL SPEED INDIC	120.00
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00



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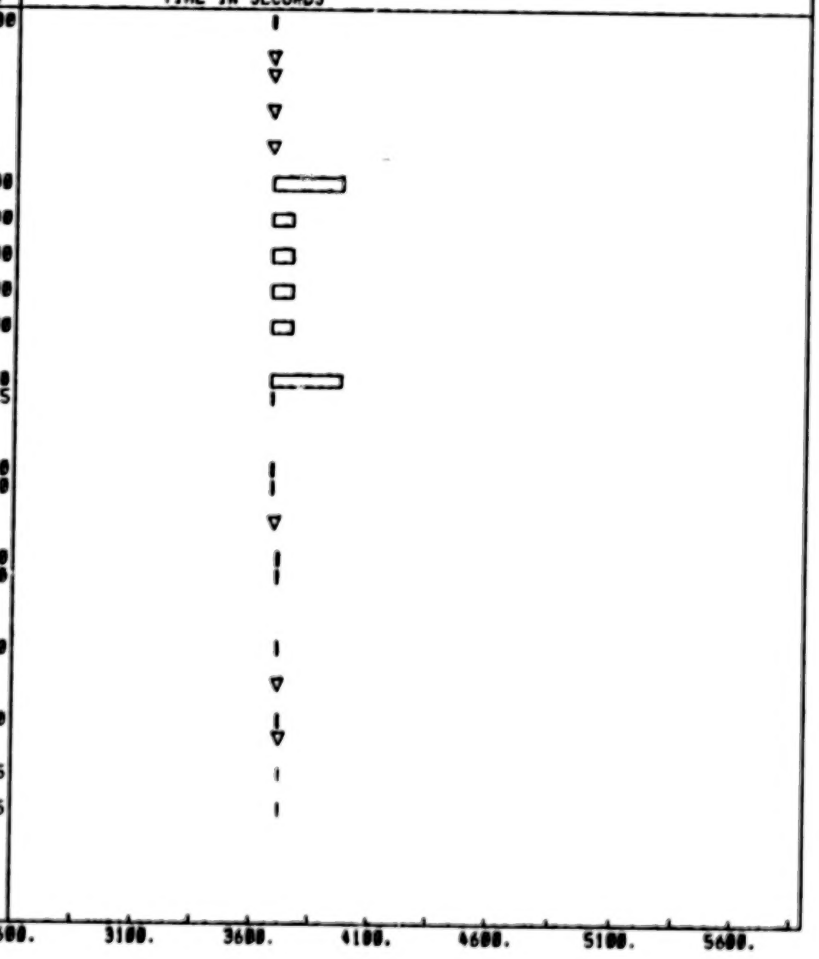
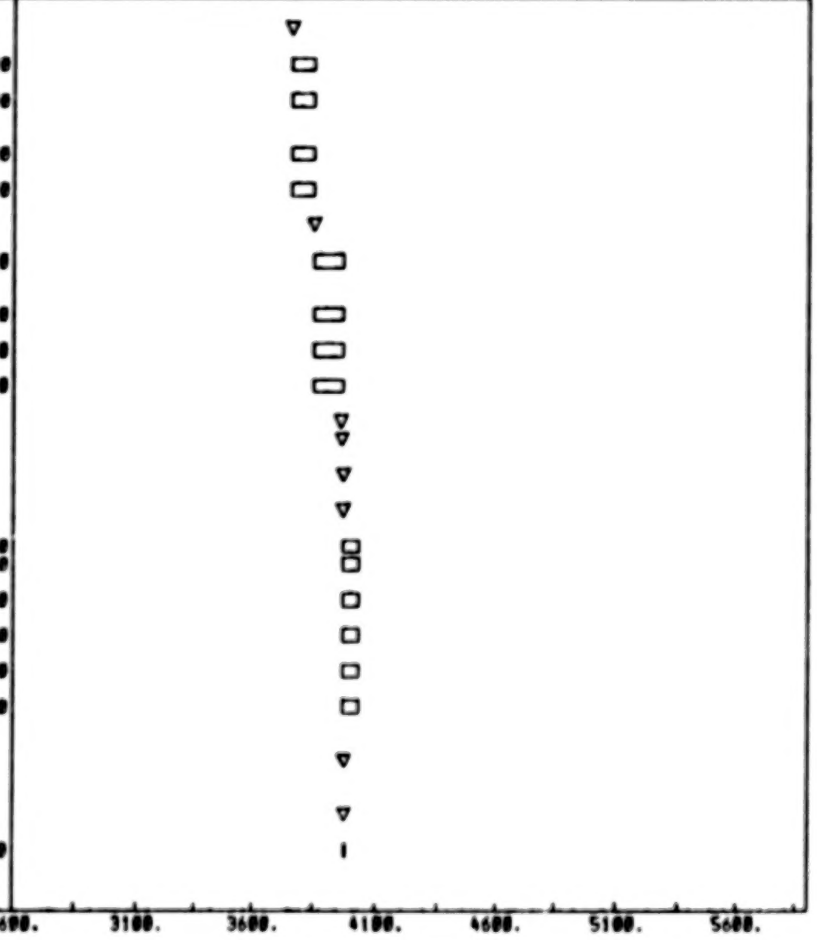
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
090818	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090819	FLIGHT INSTRUMENT SCAN - D		▽
8A 05	CAPT VIEW THRU NO.1 WINDOW	60.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
3L 02	MON VERTICAL SPEED INDIC	60.00	□
3A 10	MONITOR AIRSPEED INDIC	60.00	□
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON C]	60.00	□
4A 65	MANUALLY CONTROL A/C	60.00	□
090816	CONTROL AIRCRAFT - C (SEC PROC)		▽
090817	FLIGHT INSTRUMENT SCAN - C		▽
3L 02	MON VERTICAL SPEED INDIC	30.00	□
3A 10	MONITOR AIRSPEED INDIC	30.00	□
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	30.00	□
4A 64	MANUALLY CONTROL A/C	30.00	□
8A 05	CAPT VIEW THRU NO.1 WINDOW	30.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	□
090808	CONTROL AIRCRAFT - B (5 SEC PROC)		▽
090809	FLIGHT INSTRUMENT SCAN - B		▽
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	5.00	▯
4A 64	MANUALLY CONTROL A/C	5.00	▯
8A 05	CAPT VIEW THRU NO.1 WINDOW	5.00	▯
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	▯
3L 02	MON VERTICAL SPEED INDIC	5.00	▯

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
9A 10	MONITOR AIRSPEED INDIC	5.00
140015	REACH 26000 FT	
090036	CONTROL AIRCRAFT - E (@ SEC PROC)	
090037	FLIGHT INSTRUMENT SCAN - E	
140616	RECEIVE CLEARANCE TO DESCEND TO 11000 FT.	
8A 06	CAPT VIEW THRU NO.1 WINDOW	300.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
3L 03	MON VERTICAL SPEED INDIC	90.00
3A 11	MONITOR AIRSPEED INDIC	90.00
9S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
4A 65	MANUALLY CONTROL A/C	300.00
1P140020	MON RADIO COMM - [NASA 515, DESCEND AND MAINTAIN ONE ONE THOUSAND, CONTACT	3.75
1B 19	MON VHF-2 COMM AUDIO	6.20
1P140021	CENTER ON ONE TWO FIVE POINT TWO,OVER]	2.50
140017	TUNE NORCROSS LOW SECTOR -125.2	
1B 18	MON VHF-2 COMM AUDIO	6.00
1P140026	MON RADIO COMM - [NASA 515, ATLANTA CENTER, ROGER, SQUAWK IDENT, ALTI-	3.50
1P140027	METER TWO NINER POINT EIGHT EIGHT]	2.50
140018	SET ALTIMETER BARO SETTING TO 29.88	
1P 13	MON VERBAL REPORT	2.40
140032	ALTIMETER BARO SET PROC.	
3H 03	SET ALTIMETER BARO SETTING CONTROL	2.65
3H 04	MONITOR ALTIMETER BARO SETTING INDIC	2.65



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
090037	FLIGHT INSTRUMENT SCAN - E	
9A 11	MONITOR AIRSPEED INDIC	90.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	90.00
3L 03	MON VERTICAL SPEED INDIC	90.00
090039	FLIGHT INSTRUMENT SCAN - F	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
3L 03	MON VERTICAL SPEED INDIC	120.00
3A 11	MONITOR AIRSPEED INDIC	120.00
140019	CROSS TOCCOA VOR	
140020	TUNE WORCROSS VOR -116.6	
090018	CONTROL AIRCRAFT - D (60 SEC PROC)	
090019	FLIGHT INSTRUMENT SCAN - D	
4A 65	MANUALLY CONTROL A/C	60.00
8A 05	CAPT VIEW THRU NO.1 WINDOW	60.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00
3L 02	MON VERTICAL SPEED INDIC	60.00
3A 10	MONITOR AIRSPEED INDIC	60.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00
140022	REACH 17000 FT, BEGIN 500 FT/MIN RATE OF DESCENT	
140023	REPORT 1000 FT TO LEVEL OFF	
1P 11	MON VERBAL REPORT	1.70



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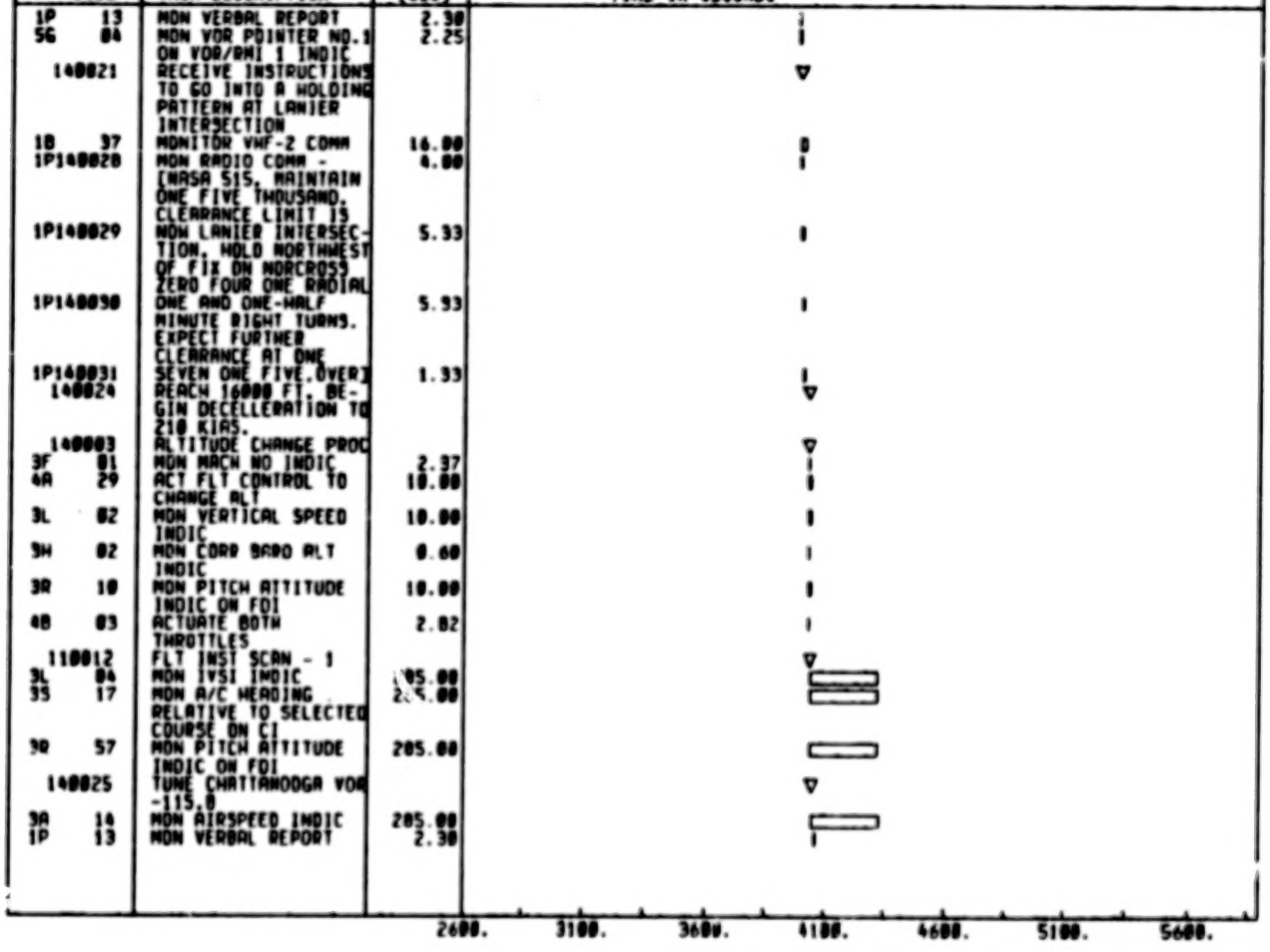
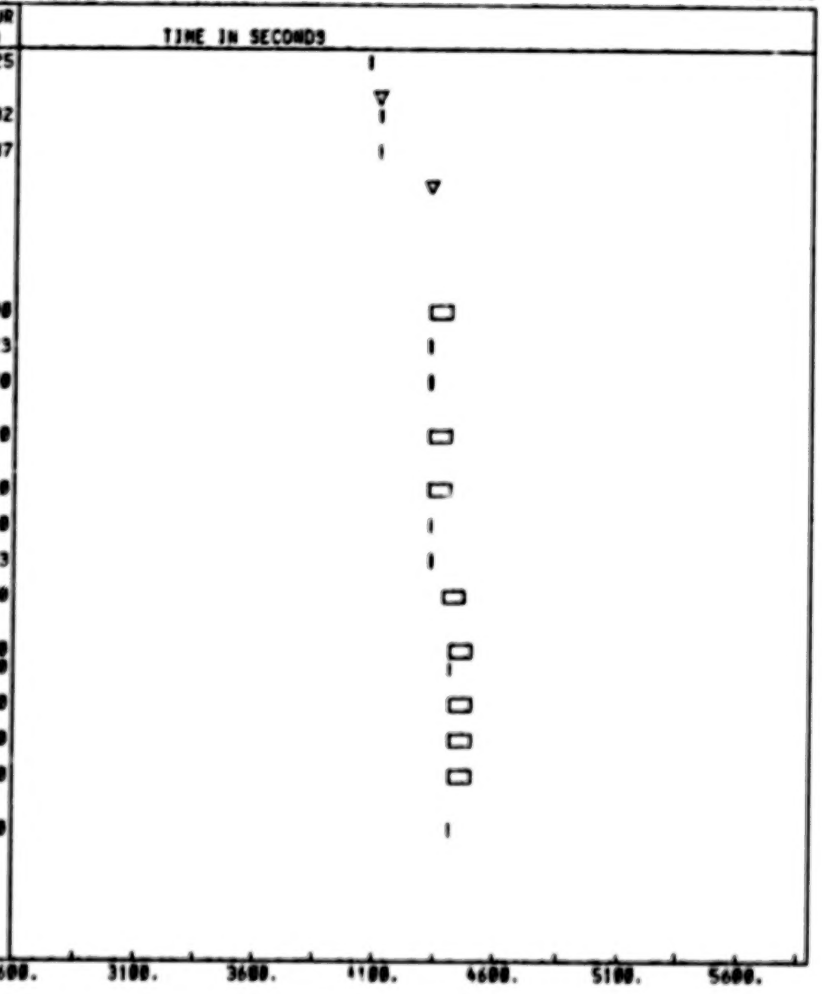
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
1P 13	MON VERBAL REPORT	2.30
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.25
140821	RECEIVE INSTRUCTIONS TO GO INTO A HOLDING PATTERN AT LANIER INTERSECTION	
1B 37	MONITOR VHF-2 COMM	16.00
1P140828	MON RADIO COMM - (NASA 515, MAINTAIN ONE FIVE THOUSAND, CLEARANCE LIMIT IS	4.00
1P140829	NOW LANIER INTERSEC-TION, HOLD NORTHWEST OF FIX ON NORCROSS ZERO FOUR ONE RADIAL	5.33
1P140830	ONE AND ONE-HALF MINUTE RIGHT TURNS. EXPECT FURTHER CLEARANCE AT ONE	5.33
1P140831	SEVEN ONE FIVE.OVER]	1.33
140824	REACH 16000 FT. BE-GIN DECELLERATION TO 210 KIAS.	
140803	ALTITUDE CHANGE PROC	
3F 01	MON MACH NO INDIC	2.37
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00
3L 02	MON VERTICAL SPEED INDIC	10.00
3H 02	MON CORR BARO ALT INDIC	0.60
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00
4B 03	ACTUATE BOTH THROTTLES	2.82
110812	FLT INST SCAN - 1	
3L 04	MON IVSI INDIC	205.00
3S 17	MON A/C HEADING RELATIVE TO SELECTED COURSE ON CI	205.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	205.00
140825	TUNE CHATTANOOGA VOR -115.0	
3A 14	MON AIRSPEED INDIC	205.00
1P 13	MON VERBAL REPORT	2.30



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.25
140826	REACH 210 KIAS.	
4B 03	ACTUATE BOTH THROTTLES	2.82
3A 01	MONITOR INDICATED AIRSPEED INDIC	2.37
140827	HOLDING PATTERN PROC -RIGHT TURNS -1 1/2 MIN. LEGS -1 LOOP -INITIATE FIRST TURN OVER INTER-SECTION	
3A 11	MONITOR AIRSPEED INDIC	90.00
3S 20	MON INDIC OF MARKER FLY OVER ON CI	2.23
3S 12	SET HEADING CURSOR ON CI USING HDG CUR-SOR CONT	5.00
4A 66	MANUALLY CONTROL A/C TO MAKE RIGHT TURN IN HOLDING PATTERN	90.00
3L 03	MON VERTICAL SPEED INDIC	90.00
3N 03	START ELAPSED TIME INDIC	2.10
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73
3S 17	MON A/C HEADING RELATIVE TO SELECTED COURSE ON CI	90.00
4A 65	MANUALLY CONTROL A/C	90.00
3N 04	RESET ELAPSED TIME INDIC	2.10
3A 11	MONITOR AIRSPEED INDIC	90.00
3L 03	MON VERTICAL SPEED INDIC	90.00
3S 17	MON A/C HEADING RELATIVE TO SELECTED COURSE ON CI	90.00
4A 67	ROLL OUT TO LEVEL CONFIGURATION	0.00



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3S 16	MON INDIC THAT A/C ABEAM OF MARKER AND ON HEADING	2.23	
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	
1P 11	MON VERBAL REPORT	0.00	
1P 11	MON VERBAL REPORT	0.00	
1P 11	MON VERBAL REPORT	0.00	
3N 03	START ELAPSED TIME INDIC	2.10	
3L 03	MON VERTICAL SPEED INDIC	90.00	
3A 11	MONITOR AIRSPEED INDIC	90.00	
4A 66	MANUALLY CONTROL A/C TO MAKE RIGHT TURN IN HOLDING PATTERN	90.00	
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	
3S 17	MON A/C HEADING RELATIVE TO SELECTED COURSE ON CI	90.00	
3L 03	MON VERTICAL SPEED INDIC	60.00	
4A 67	ROLL OUT TO LEVEL CONFIGURATION	0.00	
3N 04	RESET ELAPSED TIME INDIC	2.10	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	90.00	
4A 65	MANUALLY CONTROL A/C	60.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	
1P 11 140020	MON VERBAL REPORT RECEIVE CLEARANCE TO CONTINUE DESCENT AND APPROACH	0.00	
1P140034	MON RADIO COMM - (NASA 515, CLEARED TO ATLANTA INTERNATIONAL AIRPORT VIA	5.27	
1B 36	MONITOR VHF-2 COMM AUDIO	12.00	

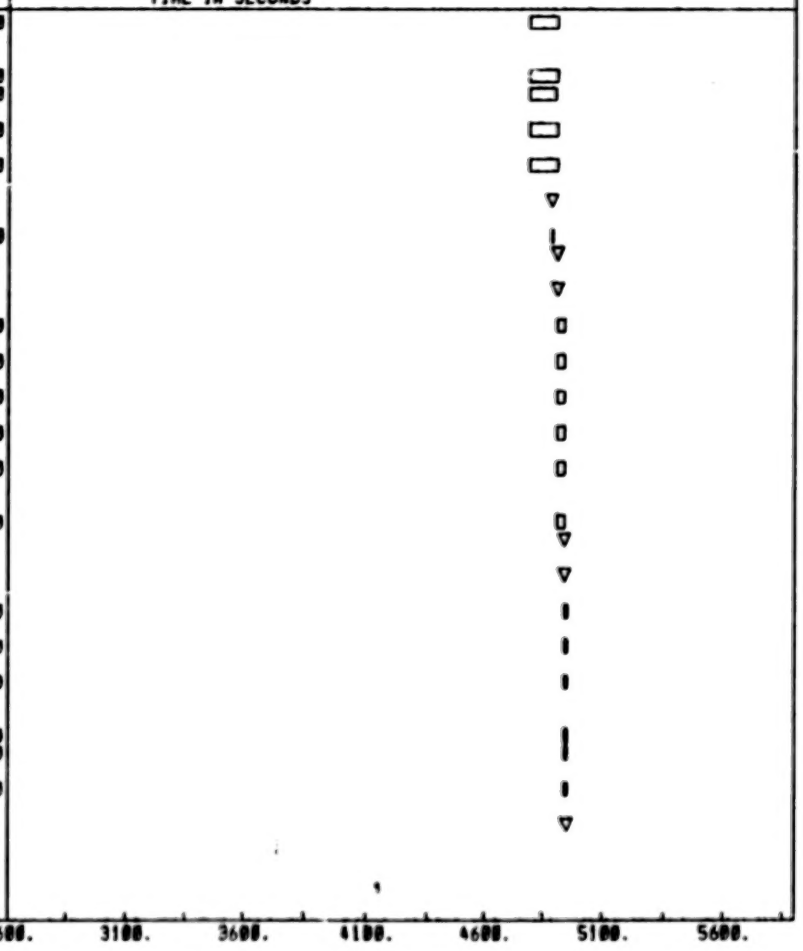
2600. 3100. 3600. 4100. 4600. 5100. 5600.

[illegible]

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P140035	LAST ROUTING CLEARED . INCREASE SPEED TO TWO THREE ZERO KNOTS . DESCEND AND MAIN-	4.96	
1P140036	TAIN ONE ONE THOU- SAND. EXPECT AN ILS RUNWAY ZERO EIGHT APPROACH. OVER]	4.96	
3N 03	START ELAPSED TIME INDIC	2.10	
140029	BEGIN DESCENT. SET THRUST FLIGHT IDLE		
140003	ALTITUDE CHANGE PROC		
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3H 02	MON CORR BARO ALT INDIC	8.60	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
4B 03	ACTUATE BOTH THROTTLES	2.82	
3F 01	MON MACH NO INDIC	2.37	
090030	CONTROL AIRCRAFT - F (120 SEC PROC)		
090039	FLIGHT INSTRUMENT SCAN - F		
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00	
3L 03	MON VERTICAL SPEED INDIC	120.00	
3A 11	MONITOR AIRSPEED INDIC	120.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00	
4A 65	MANUALLY CONTROL A/C	120.00	
0A 06	CAPT VIEW THRU NO.1 WINDOW	110.00	
090030	CONTROL AIRCRAFT - F (120 SEC PROC)		
090039	FLIGHT INSTRUMENT SCAN - F		
3A 11	MONITOR AIRSPEED INDIC	120.00	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00
4A 65	MANUALLY CONTROL A/C	120.00
8A 86	CAPT VIEW THRU NO.1 WINDOW	110.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
3L 83	MON VERTICAL SPEED INDIC	120.00
140823	REPORT 1000 FT TO LEVEL OFF	
1P 11	MON VERBAL REPORT	1.70
890816	CONTROL AIRCRAFT - C (10 SEC PROC)	
890817	FLIGHT INSTRUMENT SCAN - C	
8A 85	CAPT VIEW THRU NO.1 WINDOW	30.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00
3L 82	MON VERTICAL SPEED INDIC	30.00
3A 10	MONITOR AIRSPEED INDIC	30.00
3S 81	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	30.00
4A 64	MANUALLY CONTROL A/C	30.00
890802	CONTROL AIRCRAFT - A (10 SEC PROC)	
890803	FLIGHT INSTRUMENT SCAN - A	
3L 82	MON VERTICAL SPEED INDIC	10.00
3A 10	MONITOR AIRSPEED INDIC	10.00
3S 81	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00
4A 64	MANUALLY CONTROL A/C	10.00
8A 85	CAPT VIEW THRU NO.1 WINDOW	10.00
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00
140830	REACH 11000 FT AT 230 KIAS	



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
140003	ALTITUDE CHANGE PROC		
3F 01	MON MACH NO INDIC	2.37	
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3H 02	MON CORR BARO ALT INDIC	0.60	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
4B 03	ACTUATE BOTH THROTTLES	2.02	
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
140031	HANDOFF TO ATLANTA APPROACH CONTROL		
090002	CONTROL AIRCRAFT - A (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
1P140039	MON RADIO COMM - [NASA 515, CONTACT APPROACH CONTROL ON ONE TWO SIX POINT	4.00	
4A 64	MANUALLY CONTROL A/C	10.00	
8A 05	CAPT VIEW THRU NO.1 WINDOW	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3A 10	MONITOR AIRSPEED INDIC	10.00	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

57

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON [I	10.00	I
1B 20	MON VHF-2 COMM AUDIO	5.00	I
1P140040	NINER, OVER]	1.00	I

2600. 3100. 3600. 4100. 4600. 5100. 5600.

UNSHIFTED

MISSION TIMELINE
MISSION - NSNIIN FLT PHASES
MANUAL CONTROL
CONFIGURATION - NASA 515 - FFD
FLIGHT PHASE -APP AND LAND - FFD
ILS PROCEDURAL

CREWMEMBER - PILOT

NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
160091	CONTROL AIRCRAFT - (60 SEC PROC)	
090019	FLIGHT INSTRUMENT SCAN - D	
4A 65	MANUALLY CONTROL A/C	60.00
3R 64	MON COMMAND BAR ATITUDE INDIC ON FDI	60.00
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00
3L 82	MON VERTICAL SPEED INDIC	60.00
3A 10	MONITOR AIRSPEED INDIC	60.00
35 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00
160082	TUNE ATIS -123.7	
1P160001	MON RADIO COMM - (INFORMATION LIMA ONE SEVEN ZERO FIVE OBSERVATION- TWO	3.42
1A 15	MON VHF-1 COMM AUDIO	24.00
1P160002	FIVE HUNDRED SCATTERED CEILING FOUR THOUSAND BROKEN, VISIBILITY ONE SIX.	4.56
1P160003	TEMPERATUBE FIVE NINER. WIND ONE ONE ZERO DEGREES AT TEN GUSTING TO ONE SEVEN	4.56
1P160004	. ALTIMETER TWO - NINER EIGHT FOUR. SIMULTANEOUS PARALLEL APPROACHES IN	4.56

TIME IN SECONDS

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160005	OPERAT ON ON RUNWAYS ZERO EIGHT AND NINER RIGHT. ADVISE CONTROLLER ON INITIAL	4.56	I
1P160006	CONTACT YOU HAVE INFORMATION LIMA.)	2.20	I
160003	SET ALTIMETER BARO SETTING TO 29.84		▽
1P 13	MON VERBAL REPORT	5.50	I
140032	ALTIMETER BARO SET PROC.		▽
3H 04	MONITOR ALTIMETER BARO SETTING INDIC	2.65	I
3H 03	SET ALTIMETER BARO SETTING CONTROL	2.65	I
160004	CONTACT ATLANTA APPROACH CONTROL		▽
160005	DESCENT AND APPROACH CHECKLIST - I		▽
1P160043	CALL OUT-(DESCENT AND APPROACH CHECKLIST)	2.00	I
160091	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	60.00	□
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	□
3L 02	MON VERTICAL SPEED INDIC	60.00	□
3A 10	MONITOR AIRSPEED INDIC	60.00	□
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON C	60.00	□
4A 65	MANUALLY CONTROL A/C	60.00	□
1A 15	MON VHF-1 COMM AUDIO	2.50	I
1P160009	MON RADIO COMM - (NASA 515, ROGER. SQUAWK IDENT.)	2.50	I
1P 10	MON VERBAL REPORT	1.00	I
1P 07	MON VERBAL REPORT	0.00	I
1P 13	MON VERBAL REPORT	1.00	I
1P 16	MON VERBAL REPORT	0.40	I

4900. 5400. 5900. 6400. 6900. 7400. 7900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160006	DESCENT AND APPROACH CHECKLIST - 2		▽
1P 11	MON VERBAL REPORT	0.90	I
7M 03	SET ENG NO.1 START SW TO FLT	3.54	I
7M 06	SET ENG NO.2 START SW TO FLT	1.74	I
1P160049	CALL OUT (FLIGHT)	0.50	I
1P 12	MON VERBAL REPORT	1.10	I
1P 16	MON VERBAL REPORT	0.50	I
1P 12	MON VERBAL REPORT	1.40	I
1P 07	MON VERBAL REPORT	1.30	I
160007	DESCENT AND APPROACH CHECKLIST - 3		▽
1P 02	MON VERBAL REPORT	1.50	I
160009	CONTROL AIRCRAFT - M (10 SEC PROC)		▽
090003	FLIGHT INSTRUMENT SCAN - A		▽
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4R 04	MANUALLY CONTROL A/C	10.00	I
3R 04	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	I
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3R 10	MONITOR AIRSPEED INDIC	10.00	I
1P 14	MON VERBAL REPORT	1.90	I
160009	CONTROL AIRCRAFT - M (10 SEC PROC)		▽
3R 04	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	I
4R 04	MANUALLY CONTROL A/C	10.00	I
3A 07	MON V-REF BUG SETTING	2.57	I
3A 05	SET V-REF BUG	2.57	I
3A 13	CAPT CHECK F.O.'S V-REF BUG SETTING	3.00	I
1P 08	MON VERBAL REPORT	1.60	I
160009	CONTROL AIRCRAFT - M (10 SEC PROC)		▽

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160000	CROSS NORCROSS VOR. RECEIVE INSTRUCTIONS TO TURN TO HDG 210 AND TO SLOW TO 200 KIAS		▽
1B 10	MON VHF-2 COMM AUDIO	6.00	I
1P160010	MON RADIO COMM - (NASA 515, TURN LEFT HEADING TWO ONE ZERO REDUCE SPEED TO TWO	4.00	I
4A 64	MANUALLY CONTROL A/C	10.00	I
9R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	I
1P 02	MON VERBAL REPORT	1.30	I
1P160011	ZERO ZERO, OVER)	2.00	I
090009	FLIGHT INSTRUMENT SCAN - B		▽
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
160009	TURN TO HDG 210 AND SLOW TO 200 KIAS		▽
140007	HEADING CHANGE PROC.		▽
9L 02	MON VERTICAL SPEED INDIC	10.00	I
3S 11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR CONT	4.92	I
3R 58	MON A/C ATTITUDE RELATIVE TO ROLL COMMAND ON FDI	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	I
160010	TURN COMPLETE - ON HDG 210		▽

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160808	CONTROL AIRCRAFT - A (5 SEC PROC)		▽
090809	FLIGHT INSTRUMENT SCAN - B		▽
160811	SET FLAPS TO FLAPS 1		▽
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
1P160858	CALL OUT -[FLAPS 1]	0.70	I
4A 64	MANUALLY CONTROL A/C	5.00	I
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
160808	CONTROL AIRCRAFT - A (5 SEC PROC)		▽
090809	FLIGHT INSTRUMENT SCAN - B		▽
160812	REACH 200 KIAS		▽
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	I
1P 10	MON VERBAL REPORT	0.70	I
4A 64	MANUALLY CONTROL A/C	5.00	I
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
160893	CONTROL AIRCRAFT - F (120 SEC PROC)		▽
090839	FLIGHT INSTRUMENT SCAN - F		▽

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160013	SET NAV-1 TO RUNWAY 08 ILS -109.9		▽
9R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00	□
3L 03	MON VERTICAL SPEED INDIC	120.00	□
9A 11	MONITOR AIRSPEED INDIC	120.00	□
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	120.00	□
4A 65	MANUALLY CONTROL A/C	120.00	□
9R 65	MON COMMAND BAR ATTITUDE INDIC ON FDI	120.00	□
1P 12	MON VERBAL REPORT	2.50	I
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.25	I
160014	SET NAV-2 TO REG VOR -111.0		▽
1P 02	MON VERBAL REPORT	2.00	I
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.25	I
160015	RECEIVE INSTRUCTIONS TO SLOW TO 190 KIAS		▽
1B 37	MONITOR VHF-2 COMM	4.00	I
1P160014	MON RADIO COMM - [NASA 515, REDUCE SPEED TO ONE NINER ZERO KNOTS, OVER]	4.00	I
160016	REDUCE SPEED		▽
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	I
160017	SET FLAPS TO FLAPS 5		▽
160018	FLAP SET PROCEDURE		▽
1P160061	CALL OUT -[FLAPS 5]	0.70	I
1P 10	MON VERBAL REPORT	0.70	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
160091	CONTROL AIRCRAFT - D (60 SEC PROC)		▽
090019	FLIGHT INSTRUMENT SCAN - D		▽
3A 10	MONITOR AIRSPEED INDIC	60.00	□

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	
4A 65	MANUALLY CONTROL A/C	60.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	60.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	
3L 82	MON VERTICAL SPEED INDIC	60.00	
160019	HANDOFF TO APPROACH CONTROL -127.25		
1B 20	MON VHF-2 COMM AUDIO	5.00	
1P160016	MON RADIO COMM - (NASA 515, CONTACT APPROACH CONTROL ON ONE TWO SEVEN POINT	4.00	
1P160017	TWO FIVE, OVER)	1.00	
1P160021	MON RADIO COMM - (NASA 515, ATLANTA APPROACH, ROGER, SQUAWK IDENT)	3.50	
1B 19	MON VHF-2 COMM AUDIO	10.00	
160020	RECEIVE INSTRUCTIONS TO TURN TO HDG 270, REDUCE SPEED TO 170, AND TO DESCEND TO 4500 FT.		
1P160022	MON RADIO COMM - (NASA 515, TURN RT HEADING TWO SEVEN ZERO, REDUCE SPEED	3.00	
1B 19	MON VHF-2 COMM AUDIO	7.00	
1P160023	TO ONE SEVEN ZERO KNOTS, DESCEND AND MAINTAIN FOUR FIVE HUNDRED, OVER)	4.00	
160021	BEGIN TURN TO HDG 270		
140007	HEADING CHANGE PROC.		
090003	FLIGHT INSTRUMENT SCAN - A		
3S 11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR CONT	4.92	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
9R 58	MON A/C ATTITUDE RELATIVE TO ROLL COMMAND ON FDI	10.00	I
9R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
9L 02	MON VERTICAL SPEED INDIC	10.00	I
9A 10	MONITOR AIRSPEED INDIC	10.00	I
9S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	10.00	I
9S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	10.00	I
4A 20	ACT FLT CONTROL TO CHANGE HDG	10.00	I
9L 02	MON VERTICAL SPEED INDIC	10.00	I
160090	CONTROL AIRCRAFT - C (30 SEC PROC)		▽
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	30.00	□
4A 64	MANUALLY CONTROL A/C	30.00	□
160022	TURN COMPLETE - ON HDG 270. BEGIN DE-CELERATION TO 170.		▽
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	I
160023	REACH 170 KIAS		▽
160024	BEGIN DESCENT TO 4500 FT.		▽
140003	ALTITUDE CHANGE PROC		▽
160010	FLAP SET PROCEDURE		▽
160025	SET FLAPS TO FLAPS 15		▽
9L 02	MON VERTICAL SPEED INDIC	10.00	I
9H 02	MON CORR BARO ALT INDIC	8.60	I
9R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
4B 03	ACTUATE BOTH THROTTLES	2.02	I
3F 01	MON MACH NO INDIC	2.37	I

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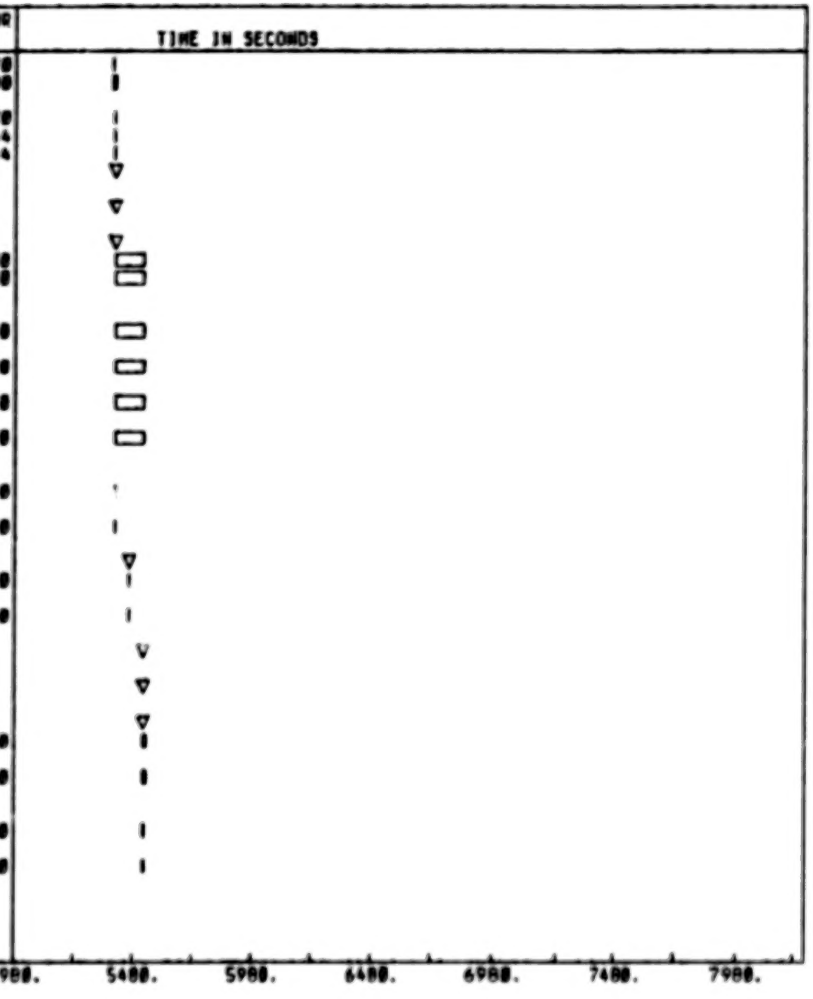
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
1P160062	CALL OUT -(FLAPS 15)	0.70
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00
1P 10	MON VERBAL REPORT	0.70
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
160093	CONTROL AIRCRAFT - F (120 SEC PROC)	
090039	FLIGHT INSTRUMENT SCAN - F	
160041	MON VOR/RMI-1	
4A 65	MANUALLY CONTROL A/C	120.00
3R 65	MON COMMAND BAR ATTITUDE INDIC ON FDI	120.00
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00
3L 03	MON VERTICAL SPEED INDIC	120.00
3A 11	MONITOR AIRSPEED INDIC	120.00
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON C]	120.00
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00
160041	MON VOR/RMI-1	
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00
160089	CONTROL AIRCRAFT - H (10 SEC PROC)	
090003	FLIGHT INSTRUMENT SCAN - A	
160041	MON VOR/RMI-1	
3A 10	MONITOR AIRSPEED INDIC	10.00
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON C]	10.00
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4A 64	MANUALLY CONTROL A/C	10.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
000017	FLIGHT INSTRUMENT SCAN - C		
100091	CONTROL AIRCRAFT - C (60 SEC PROC)		
3L 02	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	30.00	
4A 65	MANUALLY CONTROL A/C	60.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	60.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	
140023	REPORT 1000 FT TO LEVEL OFF		
1P 11	MON VERBAL REPORT	1.70	
160041	MON VOR/BMI-1		
5G 04	MON VOR POINTER NO.1 ON VOR/BMI 1 INDIC	2.30	
5G 05	MON VOR POINTER NO.2 ON VOR/BMI 1 INDIC	2.00	
160026	LEVEL OFF AT 4500 FT		
140003	ALTITUDE CHANGE PROC		
3F 01	MON MACH NO INDIC	2.37	
4A 29	ACT FLT CONTROL TO CHANGE ALT	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
3H 02	MON CDR BARO ALT INDIC	8.60	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
4B 03	ACTUATE BOTH THROTTLES	2.82	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160838	SET DECISION HEIGTH ON RADIO ALTIMETER		▽
160893	CONTROL AIRCRAFT - F (120 SEC PROC)		▽
090839	FLIGHT INSTRUMENT SCAN - F		▽
3R 57	MON PITCH ATTITUDE INDIC ON FDI	120.00	▭
3L 03	MON VERTICAL SPEED INDIC	120.00	▭
3A 11	MONITOR AIRSPEED INDIC	120.00	▭
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON C]	120.00	▭
4A 65	MANUALLY CONTROL A/C	120.00	▭
3R 65	MON COMMAND BAR ATTITUDE INDIC ON FDI	120.00	▭
160839	SET ADF-1 TO LAKE-SIDE -375KC		▽
1P 02	MON VERBAL REPORT	1.50	▯
160840	SET ADF-2 TO LAKE-SIDE -375		▽
1P 02	MON VERBAL REPORT	1.50	▯
160827	RECEIVE INSTRUCTIONS TO SLOW TO 160 KIAS.		▽
1D 37	MONITOR VHF-2 COMM	4.00	▯
1F160863	MON RADIO COMM - [NASA 515, REDUCE SPEED TO ONE SIX ZERO KNOTS, OVER]	4.00	▯
160842	MON ADF/RMI-1		▽
5D 29	MON ADF POINTER NO.2 ON ADF/RMI 1 INDIC	2.00	▯
5D 28	MON ADF POINTER NO.1 ON ADF/RMI 1 INDIC	2.00	▯
160828	REDUCE THRUST		▽
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	▯
160841	MON VOR/RMI-1		▽
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00	▯
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00	▯
160829	REACH 160 KIAS		▽

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	
160842	MON ADF/RMI-1		
5D 29	MON ADF POINTER NO.2 ON ADF/RMI 1 INDIC	2.00	
5D 28	MON ADF POINTER NO.1 ON ADF/RMI 1 INDIC	2.00	
160841	MON VOR/RMI-1		
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00	
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00	
160890	CONTROL AIRCRAFT - C (30 SEC PROC)		
090817	FLIGHT INSTRUMENT SCAN - C		
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	30.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	30.00	
3L 02	MON VERTICAL SPEED INDIC	30.00	
3A 10	MONITOR AIRSPEED INDIC	30.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	30.00	
4A 64	MANUALLY CONTROL A/C	30.00	
160889	CONTROL AIRCRAFT - B (10 SEC PROC)		
160889	CONTROL AIRCRAFT - B (10 SEC PROC)		
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
160842	MON ADF/RMI-1		
5D 29	MON ADF POINTER NO.2 ON ADF/RMI 1 INDIC	2.00	
5D 28	MON ADF POINTER NO.1 ON ADF/RMI 1 INDIC	2.00	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160889	CONTROL AIRCRAFT - B (10 SEC PROC)		▽
090003	FLIGHT INSTRUMENT SCAN - A		▽
160830	RECEIVE INSTRUCTIONS TO TURN TO HDG 180		▽
160841	MON VOR/RMI-1		▽
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00	I
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00	I
4A 64	MANUALLY CONTROL A/C	10.00	I
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	I
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	I
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3A 10	MONITOR AIRSPEED INDIC	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
1B 18	MON VHF-2 COMM AUDIO	3.50	I
1P160026	MON RADIO COMM - (NASA 515, TURN LEFT HEADING ONE EIGHT ZERO, OVER)	3.50	I
160831	TURN TO HDG 180		▽
140007	HEADING CHANGE PROC.		▽
3L 02	MON VERTICAL SPEED INDIC	10.00	I
3S 11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR	4.92	I
	CONT	•	
3R 58	MON A/C ATTITUDE RELATIVE TO ROLL COMMAND ON FDI	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160091	CONTROL AIRCRAFT - D (60 SEC PROC)		
090019	FLIGHT INSTRUMENT SCAN - D		
4A 65	MANUALLY CONTROL A/C	60.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	60.00	
3R 56	MON PITCH AITITUDE INDIC ON FDI	60.00	
3L 02	MON VERTICAL SPEED INDIC	60.00	
3A 10	MONITOR AIRSPEED INDIC	60.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	
160042	MON ADF/RMI-1		
5D 28	MON ADF POINTER NO.1 ON ADF/RMI 1 INDIC	2.00	
5D 29	MON ADF POINTER NO.2 ON ADF/RMI 1 INDIC	2.00	
160032	TURN COMPLETE - ON HDG 180		
160033	RECEIVE FINAL APPROACH INSTRUCTION		
160041	MON VOR/RMI-1		
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00	
1B 37	MONITOR VHF-2 COMM	15.00	
1P160028	MON RADIO COMM - [NASA 515, YOU ARE FOURTEEN MILES FROM THE OUTER MARKER.	3.21	
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00	
1P160029	TURN LEFT HEADING ONE TWO ZERO FOR VECTOR TO INTERCEPT FINAL APPROACH	4.28	
1P160030	COURSE. YOU ARE CLEARED FOR AN ILS RUNWAY ZERO EIGHT APPROACH. CONTACT	4.28	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160831	TOWER AT THE OUTER MARKER ON ONE ONE NINER POINT FIVE. OVER)	3.21	
160800	CONTROL AIRCRAFT - A (5 SEC PROC)		
090809	FLIGHT INSTRUMENT SCAN - B		
4A 64	MANUALLY CONTROL A/C	5.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	5.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	
3L 82	MON VERTICAL SPEED INDIC	5.00	
3A 10	MONITOR AIRSPEED INDIC	5.00	
3S 81	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	
160835	BEGIN TURN TO HDG 120		
140807	HEADING CHANGE PROC.		
3L 82	MON VERTICAL SPEED INDIC	10.00	
3S 11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR CONT	4.92	
3R 58	MON A/C ATTITUDE RELATIVE TO ROLL COMMAND ON FDI	10.00	
3S 81	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	
160843	TUNE NAV-1 TO RWY 08 ILS -109.9		
160891	CONTROL AIRCRAFT - D (60 SEC PROC)		
090819	FLIGHT INSTRUMENT SCAN - D		
3L 82	MON VERTICAL SPEED INDIC	60.00	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3A 10	MONITOR AIRSPEED INDIC	60.00	
3S 15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	60.00	
1P 02	MON VERBAL REPORT	1.50	
4A 65	MANUALLY CONTROL A/C	60.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	60.00	
3R 56	MON PITCH ATTITUDE INDIC ON FDI	60.00	
160842	MON ADF/RMI-1		
5D 29	MON ADF POINTER NO.2 ON ADF/RMI 1 INDIC	2.00	
5D 28	MON ADF POINTER NO.1 ON ADF/RMI 1 INDIC	2.00	
160841	MON VOR/RMI-1		
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00	
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00	
160836	TURN COMPLETE - ON HDG 120		
160089	CONTROL AIRCRAFT - B (10 SEC PROC)		
090003	FLIGHT INSTRUMENT SCAN - A		
3A 10	MONITOR AIRSPEED INDIC	10.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
4A 64	MANUALLY CONTROL A/C	10.00	
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	10.00	
3R 10	MON PITCH ATTITUDE INDIC ON FDI	10.00	
3L 02	MON VERTICAL SPEED INDIC	10.00	
160088	CONTROL AIRCRAFT - A (5 SEC PROC)		
090089	FLIGHT INSTRUMENT SCAN - B		
4A 64	MANUALLY CONTROL A/C	5.00	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3R 64	MON COMMAND BAR ATTITUDE INDIC ON FDI	5.00	I
3R 56	MON PITCH ATTITUDE INDIC ON FDI	5.00	I
3L 82	MON VERTICAL SPEED INDIC	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	5.00	I
160037	CAPTURE ILS LOC BEGIN TURN TO HDG 090		▽
4A 20	ACT FLT CONTROL TO CHANGE HDG	10.00	I
3R 16	MONTIOR INDICATION OF DEVIATION FROM LOCALIZER ON FDI	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
1P 02	MON VERBAL REPORT	1.30	I
3V 06	MON LOC ANNUN LT GREEN	1.21	I
160042	MON ADF/RMI-1		▽
SD 29	MON ADF POINTER NO.2 ON ADF/RMI 1 INDIC	2.00	I
SD 28	MON ADF POINTER NO.1 ON ADF/RMI 1 INDIC	2.00	I
1P160068	CALL OUT-[HAVE NAV 2 DATA]	1.50	I
3S 11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR CONT	2.07	I
160041	MON VOR/RMI-1		▽
3R 16	MONTIOR INDICATION OF DEVIATION FROM LOCALIZER ON FDI	10.00	I
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	I
5G 04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	2.00	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
5G 05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	2.00	
4A 28	ACT FLT CONTROL TO CHANGE HDG	10.00	
160044	TURN COMPLETE - ON HDG.090 -RWY 08 HDG		
160046	CONTROL AIRCRAFT ON FINAL APP - A (10)		
4A 30	ACT FLT CONT TO ALIGNA/C WITH ATT INDICATORS	10.00	
9R 16	MONTIOR INDICATION OF DEVIATION FROM LOCALIZER ON FDI	3.00	
3S 01	MONITOR A/C HEADING RELATIVE TO SELECTED HDG ON CI	10.00	
160072	CONTROL AIRCRAFT ON FINAL APP - B(240)		
3S 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	240.00	
4A 30	ACT FLT CONT TO ALIGNA/C WITH ATT INDICATORS	240.00	
9R 16	MONTIOR INDICATION OF DEVIATION FROM LOCALIZER ON FDI	240.00	
160050	RECEIVE INSTRUCTIONS TO SLOW TO 150		
1B 18	MON VHF-2 COMM AUDIO	3.50	
1P160034	MON RADIO COMM-[NASA 515, REDUCE SPEED TO ONE FIVE ZERO KNOTS OVER)	3.50	
160051	REDUCE SPEED TO 150 KIAS		
3A 01	MONITOR IDICATED AIRSPEED INDIC	0.60	
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	
160052	REACH 150 KIAS		
160055	RECEIVE INSTRUCTIONS TO MAINTAIN CURRENT SPEED		
160053	SET FLAPS TO FLAPS 25		

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B 18	MON VHF-2 COMM AUDIO	3.50	
1P160036	MON RADIO COMM - [NASA 515, MAINTAIN CURRENT SPEED UNTIL CROSSING STUBBS,OVER	3.50	
1P160070	CALL OUT -[FLAPS 25]	0.70	
3A 01	MONITOR IDICATED AIRSPEED INDIC	0.60	
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	
160054	ACQUIRE GLIDESLOPE		
3R 60	MON INITIAL MOVEMENT OF GLIDE SLOPE COMMAND BAR ON FDI	2.58	
1P 10	MON VERBAL REPORT	1.00	
3V 09	MON GLIDE SLOPE ANNUN LT GREEN	1.21	
160056	BEGIN DECELERATION TO 135 KNOTS		
1P 10	MON VERBAL REPORT	1.00	
3A 01	MONITOR IDICATED AIRSPEED INDIC	0.60	
4B 07	MAKE MINOR THRUST ADJUSTMENT	2.73	
160057	SET FLAPS TO FLAPS 40		
160069	SET SPEED BRAKES		
1P160073	CALL OUT -[FLAPS 40]	0.70	
4F 02	SET SPEED BRAKE LEVER TO ARM	3.26	
4F 07	MONITOR SPEED BRAKE LEVER ARMED LT GREEN	0.73	
160059	CROSS RWY XX OUTER MARKER		
3V 09	MON GLIDE SLOPE ANNUN LT GREEN	1.21	
3V 11	MONITOR OUTER MARKER LT ON AND AUDIBLE SIGNAL	0.72	
3N 03	START ELAPSED TIME INDIC	2.10	
3V 06	MON LOC ANNUN LT GREEN	1.21	
1P160075	CALL OUT -[GEAR DOWN AND LANDING CHECK-LIST]	1.00	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160873	CONTROL A/C ON FINAL APPROACH - C (5)		
4A 30	ACT FLT CONT TO ALIGNA/C WITH ATT INDICATORS	5.00	
3R 61	MON INDICATION OF DEVIATION FROM LOCALIZE AND GLIDE SLOPE ON FDI	5.00	
3S 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00	
160864	CROSS RWY 08 MIDDLE MARKER		
160865	DESCEND THRU -DECISION HEIGTH		
160866	CONTROL AIRCRAFT THRU TOUCHDOWN		
160858	REPORT RUNWAY IN SIGHT		
4A 68	MANUALLY CONT A/C	26.00	
3V 13	MONITOR MIDDLE MARKER ANNUN LT ON AND AUDIBLE SIGNAL	1.91	
1P 10	MON VERBAL REPORT	1.00	
1P 11	MON VERBAL REPORT	0.00	
160867	CROSS END OF RWY 08		
160868	TOUCHDOWN		
4M 04	ACTUATE NOSE GEAR STEERING USING RUDDER PEDALS	58.00	
0A 02	CAPT VIEW THRU NO.1 WINDOW	50.00	
4B 00	SET THRUST LEVERS TO IDLE	2.50	
4A 31	MANUALLY CONTROL A/C	75.00	
4C 01	SET THRUST REVERSER LEVERS TO ON	21.00	
4C 02	SET THRUST REVERSER LEVERS TO OFF	2.76	
4F 01	SET SPD BRAKE LEVER TO DOWN	3.26	
160871	HANDOFF TO GROUND CONTROL -121.9		

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160087	MON RADIO COMM - [NASA 515,EXIT RUNWAY NEXT INTERSECTION. CONTACT GROUND	3.50	I
1B 18	MON VHF-2 COMM AUDIO	6.00	I
1P160088	POINT NINER WHEN CLEAR OF RUNWAY. OVER]	2.50	I
1B 18	MON VHF-2 COMM AUDIO	3.50	I
1P160091	MON RADIO COMM - [NASA 515, ATLANTA GROUND, TAXI TO RAMP VIA NORTHEAST-SOUTHWEST TAXIWAY. OVER]	3.50	I
1P160092		1.00	I

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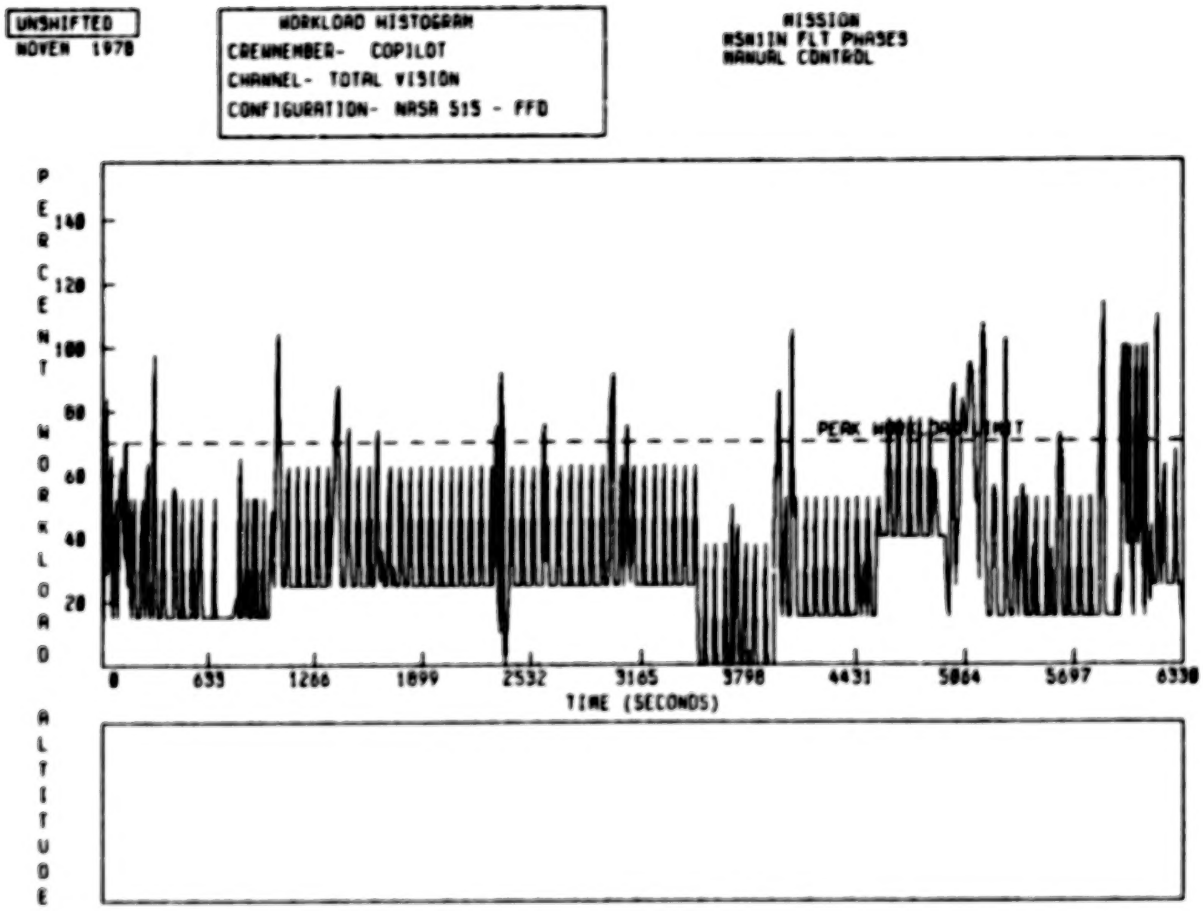
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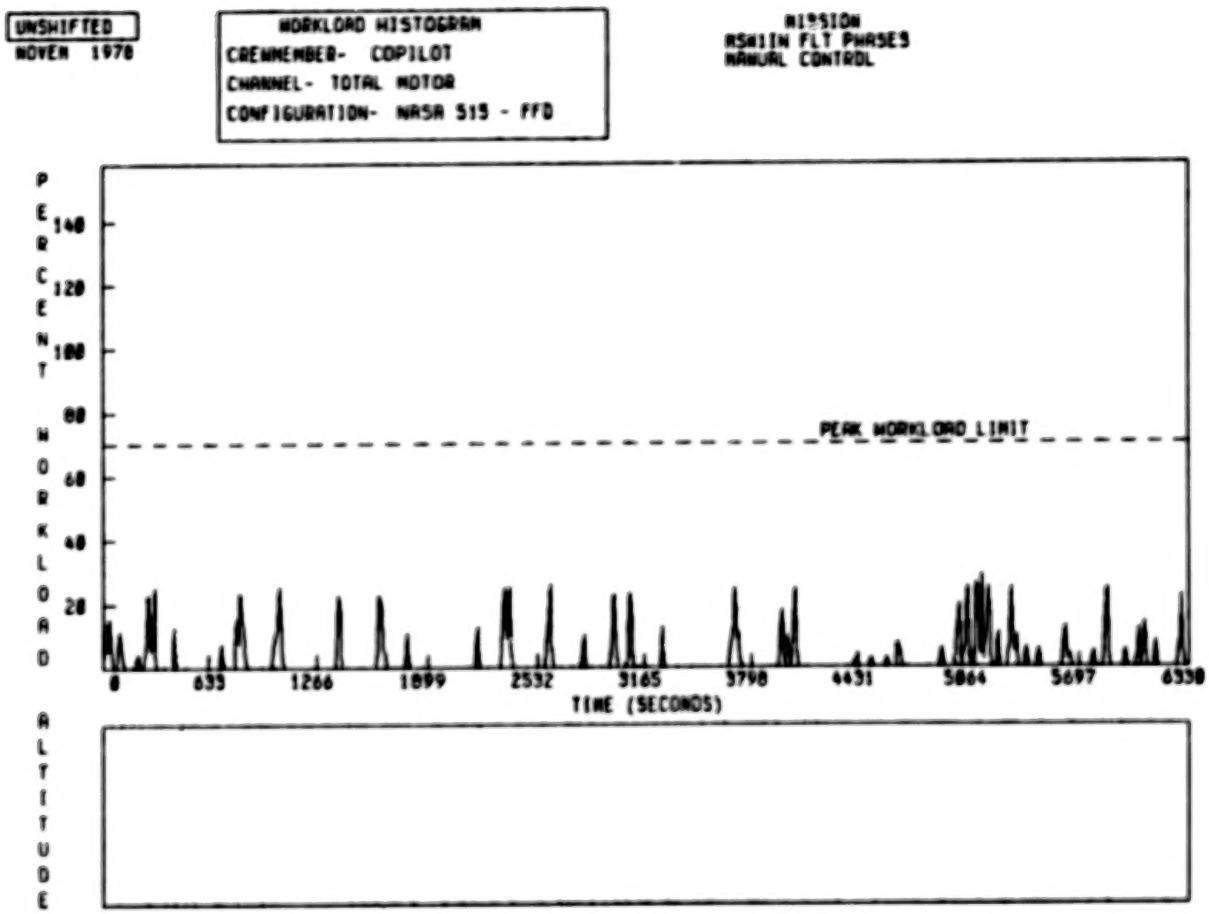
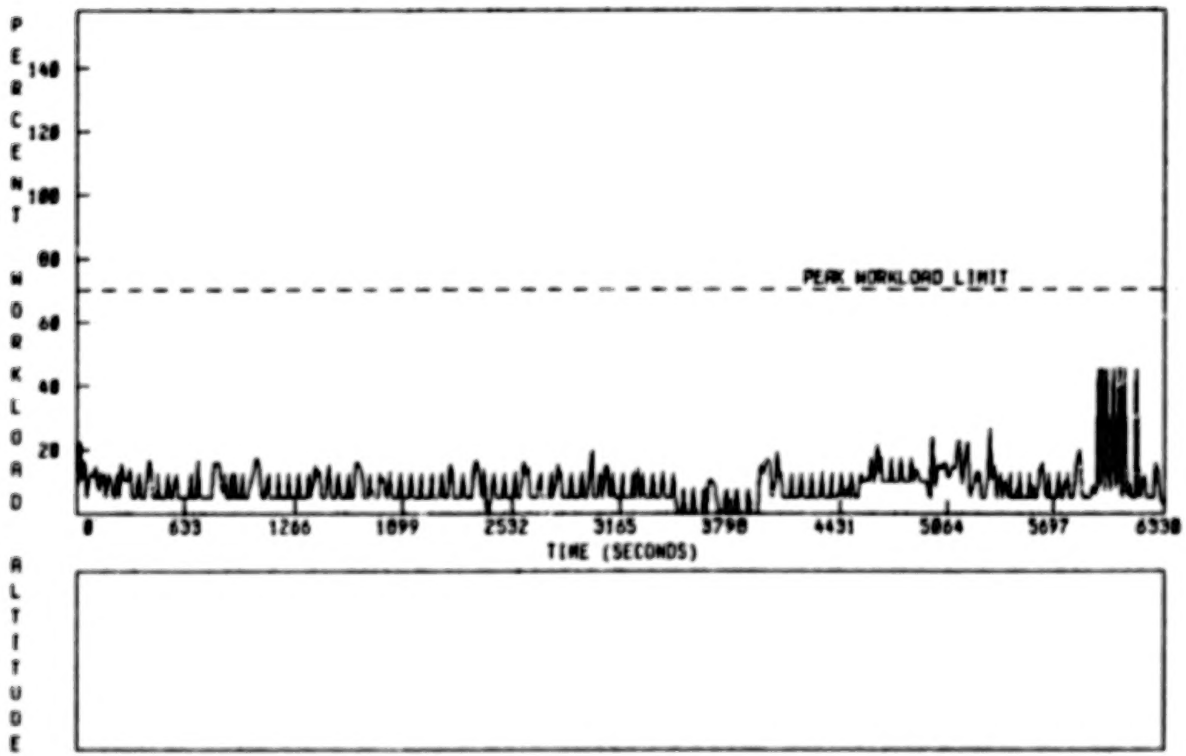
NOVEM 1978
WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL VISION
CONFIGURATION- NASA 515 - FFD
MISSION
NSAIN FLT PHASES
MANUAL CONTROL
PERCENT WORKLOAD
140
120
100
80
60
40
20
0
PEAK WORKLOAD LIMIT
0
633
1266
1899
2532
3165
3798
4431
5064
5697
6330
TIME (SECONDS)
ALTITUDE


UNSHIFTED
NOVEM 1978
WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL MOTOR
CONFIGURATION- NASA 515 - FFD
MISSION
RSHIN FLT PHASES
MANUAL CONTROL
PERCENT WORKLOAD
140
120
100
80
60
40
20
PEAK WORKLOAD LIMIT
0
633
1266
1899
2532
3165
3798
4431
5064
5697
6330
TIME (SECONDS)
ALTITUDE

UNSHIFTED
NOVEM 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- COGNITION
CONFIGURATION- NASA 515 - PFD

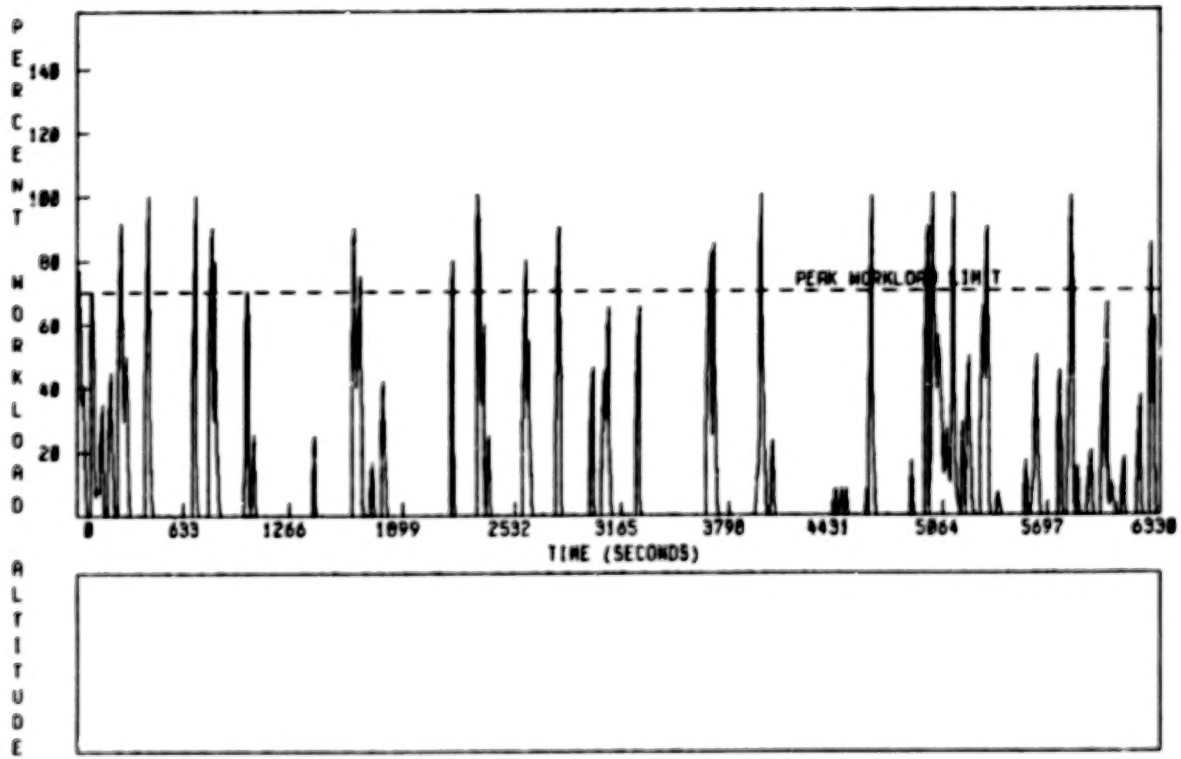
MISSION
ASNIIN FLT PARSES
MANUAL CONTROL



UNSHIFTED
NOVEM 1970

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- TOTAL COMMUNICATION
CONFIGURATION- NASA 515 - FFD

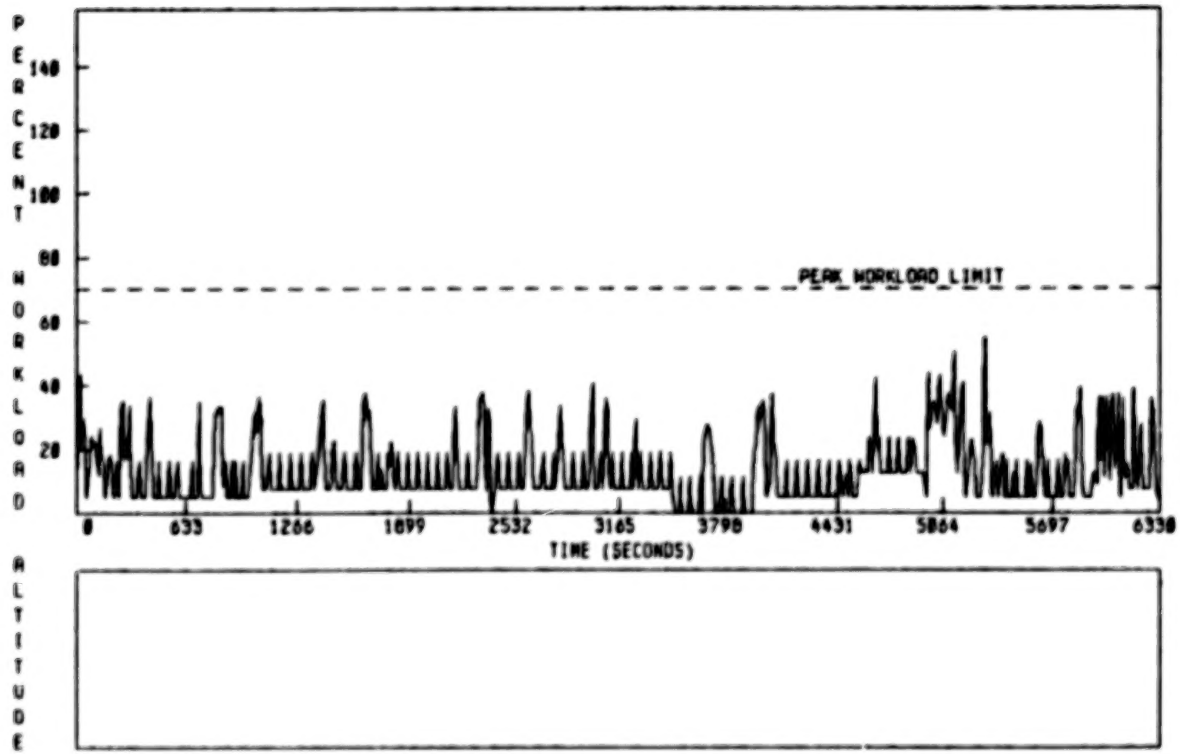
MISSION
NSN11N FLT PHASES
MANUAL CONTROL

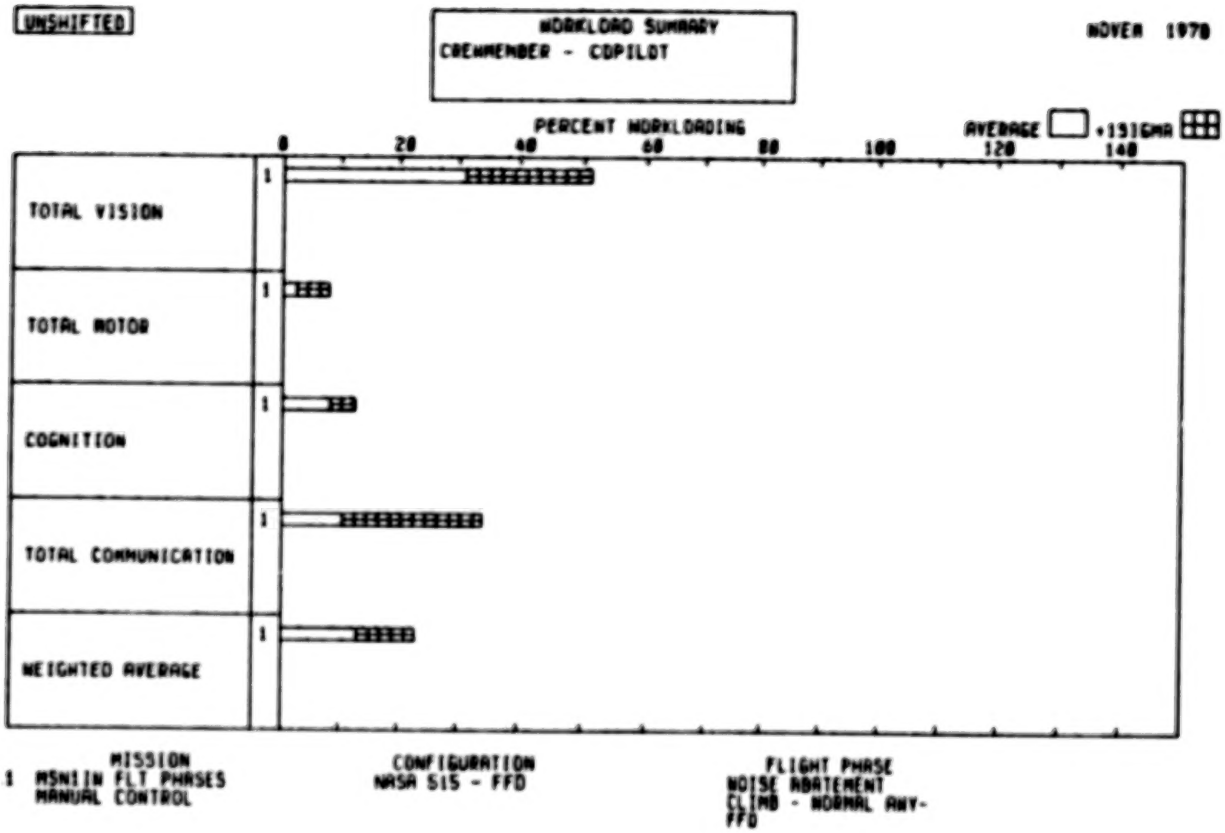


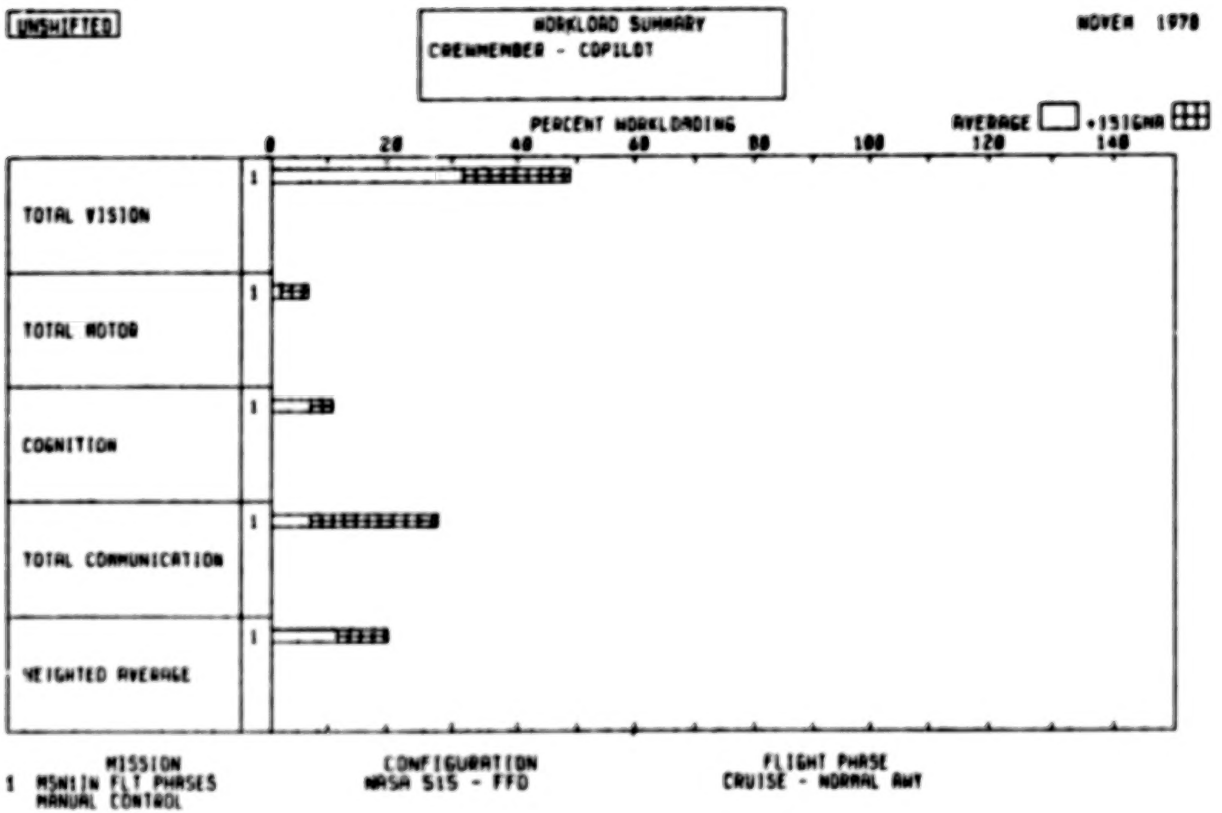
UNSHIFTED
NOVEM 1978

WORKLOAD HISTOGRAM
CREWMEMBER- COPILOT
CHANNEL- WEIGHTED CHANNEL AVERAGE
CONFIGURATION- NASA 515 - FFD

MISSION
NSNIIN FLT PHASES
MANUAL CONTROL



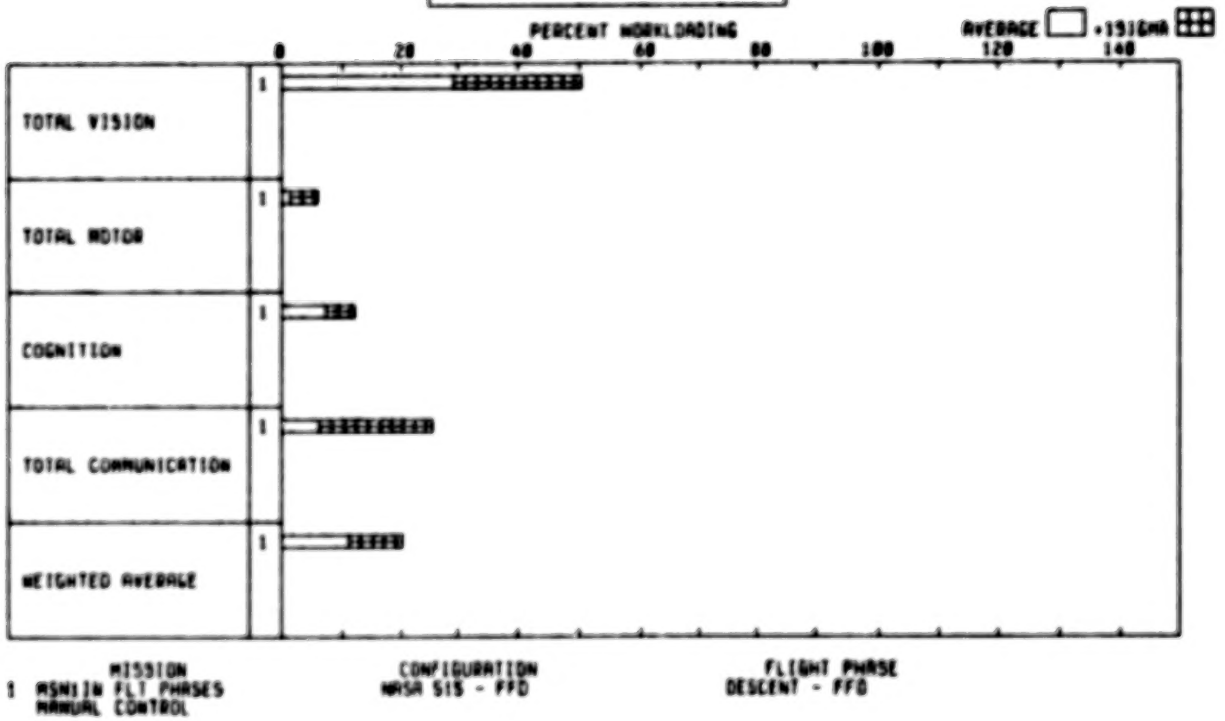

UNSHIFTED
WORKLOAD SUMMARY
CREWMEMBER - COPILOT
NOVEM 1978
PERCENT WORKLOADING
0
20
40
60
80
100
120
140
AVERAGE
+1SIGMA
TOTAL VISION
TOTAL MOTOR
COGNITION
TOTAL COMMUNICATION
WEIGHTED AVERAGE
1
MISSION
1 MSN1IN FLT PHASES
MANUAL CONTROL
CONFIGURATION
NASA 515 - FFD
FLIGHT PHASE
NOISE ABATEMENT
CLIMB - NORMAL ANY-
FFD


UNSHIFTED
WORKLOAD SUMMARY
CREWMEMBER - COPILOT
NOVEM 1978
PERCENT WORKLOADING
AVERAGE
+1SIGMA
0
20
40
60
80
100
120
140
TOTAL VISION
TOTAL MOTOR
COGNITION
TOTAL COMMUNICATION
WEIGHTED AVERAGE
1
MISSION
1 MSN1IN FLT PHASES
MANUAL CONTROL
CONFIGURATION
NASA 515 - FFD
FLIGHT PHASE
CRUISE - NORMAL ANT

UNSHIFTED

WORKLOAD SUMMARY
CREWMEMBER - COPILOT

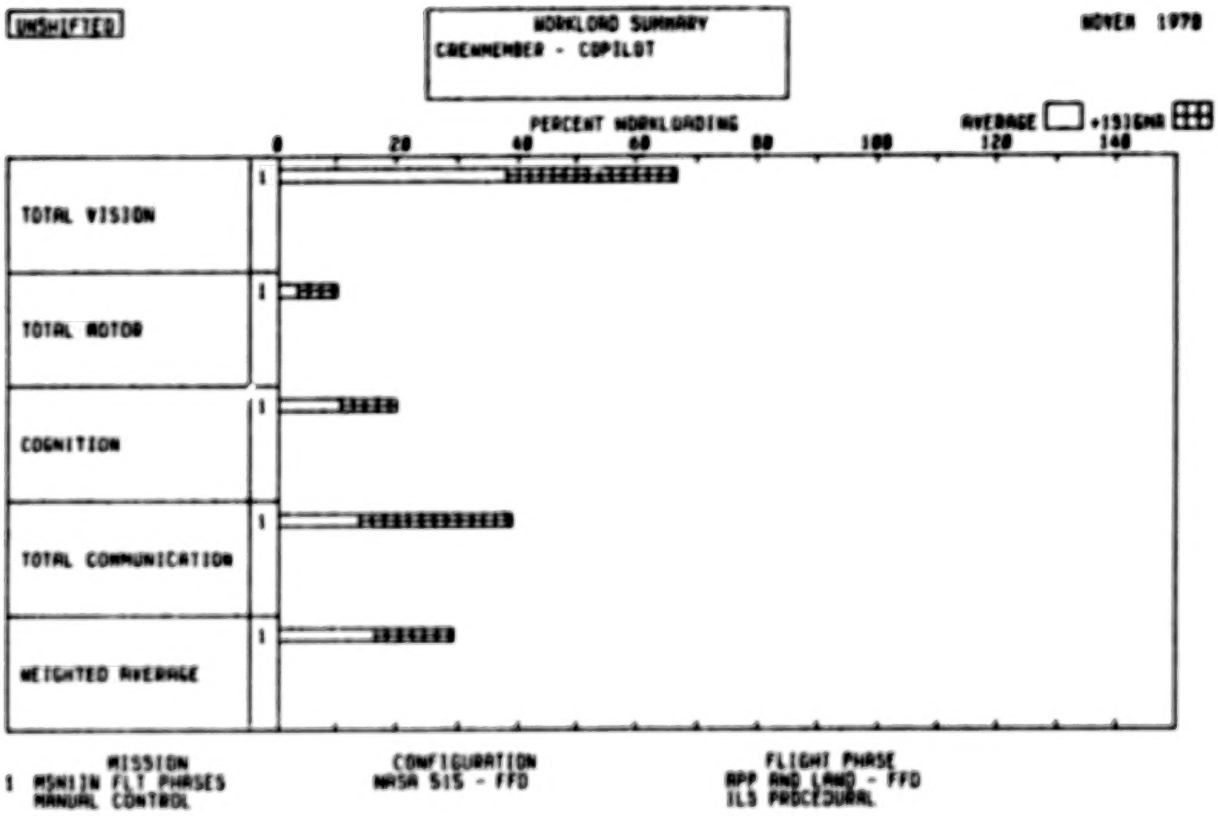
HOVER 1978



MISSION
1 ASN11N FLT PHASES
MANUAL CONTROL

CONFIGURATION
NASA S1S - FFD

FLIGHT PHASE
DESCENT - FFD

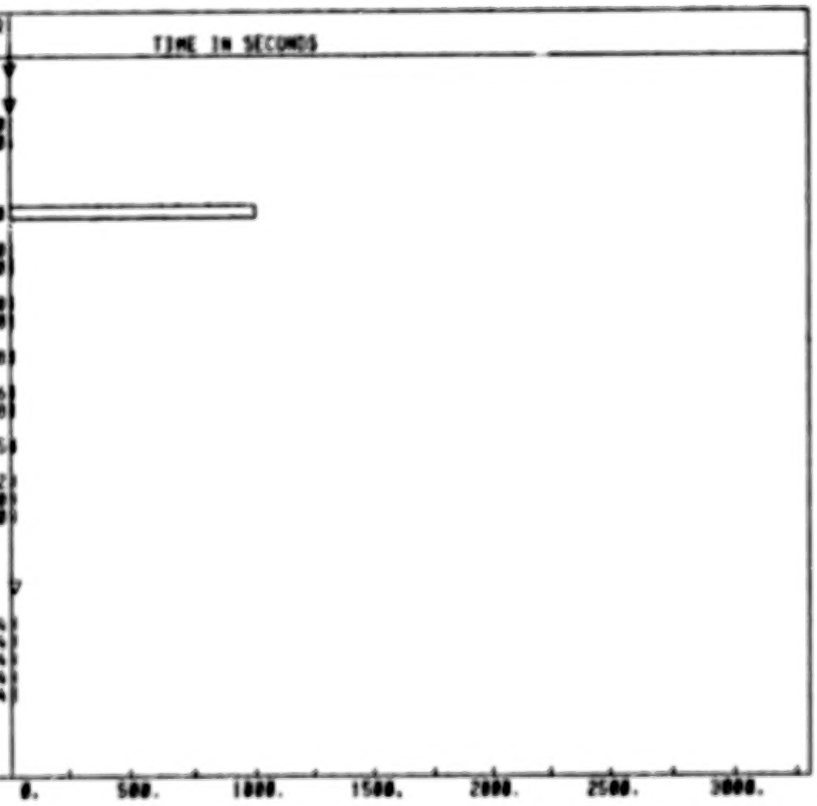

UNSHIFTED
WORKLOAD SUMMARY
CREWMEMBER - COPILOT
HOVER 1978
PERCENT WORKLOADING
AVERAGE
+1SIGMA
0
20
40
60
80
100
120
140
TOTAL VISION
TOTAL MOTOR
COGNITION
TOTAL COMMUNICATION
WEIGHTED AVERAGE
1
MISSION
1 MSN1IN FLT PHASES
MANUAL CONTROL
CONFIGURATION
NASA SIS - FFD
FLIGHT PHASE
APP AND LAND - FFD
ILS PROCEDURAL

UNSHIFTED

MISSION TIMELINE
MISSION - MSN1N FLT PHASES
MANUAL CONTROL
CONFIGURATION - NASA S1S - FFD
FLIGHT PHASE -NOISE ABATEMENT
CLIMB - NORMAL ANY-
FFD
CREWMEMBER - COPILOT

NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
090001	CONTACT DEPARTURE CONTROL 125.7	
00EV1B	C/P EXT VIS SCAN	
1B 1B	MON VHF-2 COMM AUDIO	6.00
1P090001	MON RADIO COMM - (NASA S1S, CONTACT ATLANTA DEPARTURE ON ONE TWO FIVE POINT	4.50
8A 14	CRWMBR EXTERNAL VISION SCAN	1000.00
1P090024	SEVEN, GOOD-DAY SIR!	1.50
1B 14	ACT PUSH-TO-TALK SW ON HANDGRIP	1.70
1B 1B	COMM VIA VHF-2	1.70
1P090002	RADIO COMM -(NASA S1S, ROGER)	1.70
1B 08	SET VHF-2B FREQ - WHOLE NO.S	2.80
1B 07	MON VHF-2B FREQ IND	4.86
1B 09	SET VHF-2B FREQ - FRACTIONS	1.90
1B 06	SET VHF-2 COMM TFR SW TO RIGHT	1.45
1B 13	ACT COMM 2 PTT SW	1.42
1B 1B	COMM VIA VHF-2	3.50
1P090003	RADIO COMM -(ATLANTA DEPARTURE CONTROL, THIS IS NASA S1S, OVER)	3.50
030007	ENGINE INSTRUMENT SCAN	
2F 25	MON ENG NO 1 EPR IND	0.44
2F 38	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
1P090005	MON RADIO COMM- (NASA 515, ATLANTA DEPARTURE, ROGER, SQUAWK IDENT)	3.50	
1B 18	MON VHF-2 COMM AUDIO	3.50	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
090005	COMPLETE TURN - ON HDG 185		
N 07	PRESS ATC IDENT SW	2.14	
N 11	MON ATC TEST LT ON	1.50	
1B 19	MON VHF-2 COMM AUDIO	3.20	
1P090006	MON RADIO COMM - (NASA 515, RADAR CONTACT, SAY ALTITUDE, OVER)	3.20	
090006	RETRACT FLAPS TO FLAPS 1. SET CLIMB THRUST.		
1P090007	RADIO COMM -(NASA 515, LEAVING ONE EIGHT HUNDRED)	2.30	
1B 13	ACT COMM 2 PTT SW	3.50	
1B 16	COMM VIA VHF-2	2.30	
1P 10	MON VERBAL REPORT	0.60	
4E 07	SET FLAP CONT LEVER TO FLAPS 1	2.69	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	
1P090063	CALL OUT-(FLAPS 1)	0.00	
1B 03	SET VHF-2L FREQ - FRACTIONS	1.98	
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
090018	RECEIVE INSTRUCTIONS TO TURN TO HDG 070 TO INTERCEPT J37		▽
1P090025	MON RADIO COMM - (NASA 515, FOR VECTOR TO INTERCEPT JAY THIRTY SEVEN, TURN	3.00	I
1B 19	MON VHF-2 COMM AUDIO	7.00	I
1P090026	LEFT HEADING ZERO SEVEN ZERO, CLIMB AND MAINTAIN NINER THOUSAND, OVER)	4.00	I
1P090027	RADIO COMM -(NASA 515, ROGER, LEFT HEADING ZERO SEVEN ZERO, MAINTAIN NINER	4.00	I
1B 24	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.50	I
1B 16	COMM VIA VHF-2	4.50	I
1P090028	THOUSAND.)	0.50	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 38	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
090012	COMPLETE TURN - ON MDG 070		▽
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
090011	RETRACT FLAPS TO FLAPS 0.		▽
1P 10	MON VERBAL REPORT	0.60	I
4E 06	SET FLAP CONT LEVER TO FLAPS 0	2.69	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	I
090013	REACH 250 KIAS		▽
4N 03	MON LE FLAPS-IN-TRANSI. LT ON	1.17	I
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P090064	CALL OUT -(FLAPS ZERO)	0.80	I
090014	AFTER TAKEOFF CHECK-LIST		▽
1P 10	MON VERBAL REPORT	0.70	I
00090001	READ NEXT ITEM ON CHECKLIST ON CONTROL COLUMN PLACARD	1.00	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7M 12	CHECK ENG NO.1 START SW SET TO OFF	2.41	
7M 13	CHECK THAT ENG NO.2 START SW SET TO OFF	0.78	
1P090019	CALL OUT- -(OFF)	0.50	
00090001	READ NEXT ITEM ON CHECKLIST ON CONTROL COLUMN PLACARD	1.00	
1P090020	CALL OUT -(LANDING GEAR)	0.90	
4D 00	MON NOSE GEAR UNLOCKED LT OFF	0.72	
4D 11	MON LEFT/RT GEAR UNLOCKED LT ON	0.54	
1P090021	CALL OUT-(UP AND OFF)	1.00	
00090001	READ NEXT ITEM ON CHECKLIST ON CONTROL COLUMN PLACARD	1.00	
1P090022	CALL OUT -(FLAPS)	0.60	
1P090021	CALL OUT-(UP AND OFF)	1.00	
00090001	READ NEXT ITEM ON CHECKLIST ON CONTROL COLUMN PLACARD	1.00	
1P090023	CALL OUT -(AFTER TAKEOFF CHECKLIST COMPLETE)	1.90	
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME in SECONDS
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 23	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
090015	RECEIVE CLEARANCE TO CLIMB TO 12000 FT		

0. 500. 1000. 1500. 2000. 2500. 3000.

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME in SECONDS
1P090029	MON RADIO COMM - (WRSA 515, CLIMB AND MAINTAIN ONE TWO THOUSAND, OVER)	3.50	I
1B 18	MON VHF-2 COMM AUDIO	3.50	I
1B 16	COMM VIA VHF-2	2.80	I
1P090050	RADIO COMM - (WRSA 515, ROGER, MAINTAIN ONE TWO THOUSAND)	2.80	I
1B 24	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	2.80	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 26	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 2 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
090023	HANDOFF TO ATLANTA EAST DEPARTURE SECTOR, -123.95		▽

0. 500. 1000. 1500. 2000. 2500. 3000.

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P898888	MON RADIO COMM-(NASA 515, CLIMB AND MAINTAIN FLIGHT LVL 290. CONTACT ATLANTA	3.10	
1B 19	MON VHF-2 COMM AUDIO	6.20	
1P898889	CENTER ON ONE TWO THREE POINT NINER FIVE, OVER]	3.10	
1B 26	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	7.00	
1B 17	COMM VIA VHF-2	7.00	
1P898810	RADIO COMM -[515, ROGER. CLIMB AND MAINTAIN FLIGHT LEVEL TWO THREE ZERO	3.50	
1P898811	, CONTACT CENTER ON ONE TWO THREE POINT NINER FIVE, GOOD DAY]	3.50	
1B 01	MON VHF-2L FREQ IND	4.00	
1B 02	SET VHF-2L FREQ-WHOLE NO,S	2.90	
1B 03	SET VHF-2L FREQ - FRACTIONS	1.90	
1B 28	ACTUATE COMM 2 PUSH-TO-TALK SW	5.00	
1B 17	COMM VIA VHF-2	5.00	
1P898812	RADIO COMM - [ATLANTA CENTER, THIS IS NASA 515 OUT OF 11000 FOR FL230,	0.45	
1P898813	OVER]	0.50	
1B 18	MON VHF-2 COMM AUDIO	3.50	
1P898814	MON RADIO COMM - [NASA 515, THIS IS ATLANTA CENTER, ROGER. SQUAWK IDENT]	3.50	
1N 07	PRESS ATC IDENT SW	2.14	
1B 18	MON VHF-2 COMM AUDIO	3.50	
1P898815	MON RADIO COMM - [NASA 515, RADAR CONTACT. REPORT LEAVING FL210,OVER]	3.50	
1B 24	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	3.50	
1B 16	COMM VIA VHF-2	3.50	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P090016	RADIO COMM - [NASA 515, RAGER, REPORT FLIGHT LEVEL TWO ONE ZERO]	9.50	I
090024	TUNE COMPANY AND EMERGENCY FREQ<S		▽
1A 01	MON VHF-1L FREQ IND	4.09	I
1A 02	SET VHF-1L FREQ - WHOLE NO.S	2.98	I
1A 03	SET VHF-1L FREQ - FRACTIONS	1.98	I
1A 08	SET VHF-1R FREQ. WHOLE NO.S	2.98	I
1A 07	MON VHF-1R FREQ IND	3.99	I
1A 09	SET VHF-1R FREQ - FRACTIONS	1.98	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
090025	RECEIVE NOTICE OF CONFLICTING TRAFFIC		▽
1P090031	MON RADIO COMM - (NASA 515, MAINTAIN FLIGHT LEVEL ONE EIGHT ZERO, TRAFFIC	3.75	I
1B 19	MON VHF-2 COMM AUDIO	10.00	I
1P090032	TWELVE O<CLOCK, FOUR MILES, NORTHEAST BOUND, C-130 ASSIGND FLIGHT LEVEL ONE	5.00	I
1P090033	NINER ZERO, OVER]	1.25	I
0A 03	F.O. VIEW THRU NO.1 WINDOW	2.00	I
1B 17	COMM VIA VHF-2	5.00	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	!
7F 30	MON ENG NO 2 EPR IND	0.44	!
7F 22	MON NO 2 ENG N1 IND	0.44	!
7F 21	MON NO 1 ENG N1 IND	0.44	!
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	!
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	!
7F 24	MON NO 2 ENG N2 IND	0.44	!
7F 23	MON NO 1 ENG N2 IND	0.44	!
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	!
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	!
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	!
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	!
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	!
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	!
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	!
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	!
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	!
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	!
7F 25	MON ENG NO 1 EPR IND	0.44	!
7F 21	MON NO 1 ENG N1 IND	0.44	!
7F 22	MON NO 2 ENG N1 IND	0.44	!
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	!
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	!
7F 23	MON NO 1 ENG N2 IND	0.44	!
7F 24	MON NO 2 ENG N2 IND	0.44	!
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	!
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	!

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
050007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
090020	RECEIVE CLEARANCE TO RESUME CLIMB TO CRUISE ALTITUDE		V
1B 19	MON VHF-2 COMM AUDIO	7.00	I
1P090036	MON RADIO COMM - (NASA 515, CLEAR OF TRAFFIC, CLIMB AND MAINTAIN FLIGHT	3.00	I
1P090037	LEVEL TWO THREE ZERO , REPORT LEAVING FLIGHT LEVEL TWO ONE ZERO. OVER)	4.00	I
1B 17	COMM VIA VHF-2	4.00	I
1P090038	RADIO COMM - (NASA 515. ROGER. MAINTAIN TWO THREE ZERO. REPORT LEAVING TWO	3.50	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.00	I
1P090039	ONE ZERO.)	0.50	I

0. 500. 1000. 1500. 2000. 2500. 3000.

[illegible]

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
898829	CLIMB THRU 23000 FT. HANDOFF TO SPARTANBURG HIGH SECTOR -133.7		▽
3H 82	MON CORR BARO ALT INDIC	8.60	I
1P898045	RADIO COMM -[ATLANTA CENTER, THIS IS NASA 515 OUT OF FLIGHT LEVEL TWO THREE ZERO	9.70	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.88	I
1B 17	COMM VIA VHF-2	6.88	I
1P898046	FOR TWO NINER ZERO. OVER]	2.98	I
1B 19	MON VHF-2 COMM AUDIO	7.88	I
1P898041	MON RADIO COMM - [NASA 515, ROGER. CLIMB AND MAINTAIN FLIGHT LEVEL THREE	9.58	I
1P898042	ONE ZERO. CONTACT CENTER ON ONE THREE THREE POINT SEVEN. OVER]	3.58	I
1P898043	RADIO COMM -[NASA 515, ROGER. MAINTAIN FLIGHT LEVEL THREE ONE ZERO, CENTER ON	3.78	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.88	I
1B 17	COMM VIA VHF-2	6.88	I
1P898044	ONE THREE THREE POINT SEVEN.]	2.38	I
1B 87	MON VHF-2R FREQ IND	4.86	I
1B 88	SET VHF-2R FREQ - WHOLE NO.S	2.88	I
1B 89	SET VHF-2R FREQ - FRACTIONS	1.98	I
1B 86	SET VHF-2 COMM TFR SW TO RIGHT	1.45	I
1P898045	RADIO COMM -[ATLANTA CENTER, THIS IS NASA 515 OUT OF FLIGHT LEVEL TWO THREE ZERO	3.78	I
1B 28	ACTUATE COMM 2 PUSH-TO-TALK SW	6.88	I
1B 17	COMM VIA VHF-2	6.88	I

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P898046	FOR TWO NINER ZERO, OVER]	2.30	
1B 19	MON VHF-2 COMM AUDIO	7.00	
1P898047	MON RADIO COMM - [NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT, REPORT	3.70	
1P898048	LEAVING FLIGHT LEVEL TWO EIGHT ZERO, OVER]	3.30	
1N 87	PRESS ATC IDENT SW	2.14	
1P898049	RADIO COMM -[NASA 515, ROGER. REPORT FLIGHT LEVEL TWO EIGHT ZERO.]	4.00	
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.00	
1B 17	COMM VIA VHF-2	4.00	
039007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 16	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
00EV09	C/P EXT VIS SCAN	

TIME IN SECONDS

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
BA 12	CRWMBR EXTERNAL VISION SCAN	45.00
090031	CLIMB THRU 28000 FT. REPORT TO ATC.	
3H 02	MON CDR BARO ALT INDIC	2.37
1P090050	RADIO COMM -[ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO EIGHT ZERO,OVER]	4.00
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.00
1B 17	COMM VIA VHF-2	4.00
1B 20	MON VHF-2 COMM AUDIO	5.00
1P090051	MON RADIO COMM-[NASA 515, ROGER, CLIMB AND MAINTAIN FLIGHT LEVEL TWO	9.50
1P090052	NINER ZERO, OVER]	1.50
1P090053	RADIO COMM -[NASA 515, ROGER, MAINTAIN FLIGHT LEVEL TWO NINER ZERO.]	4.00
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.00
1B 17	COMM VIA VHF-2	4.00
140023	REPORT 1000 FT TO LEVEL OFF	
3H 02	MON CDR BARO ALT INDIC	2.13
1P140045	CALL OUT -[1000 FEET TO LEVEL OFF]	1.70
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44

TIME IN SECONDS

0. 500. 1000. 1500. 2000. 2500. 3000.

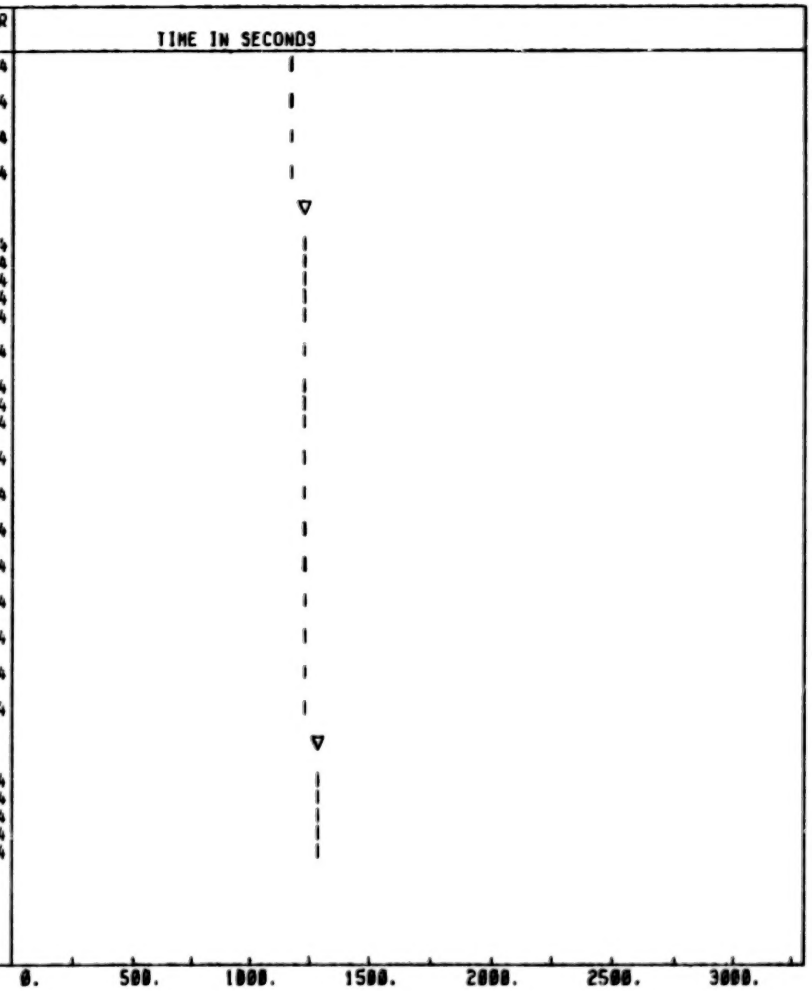
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
090039	TUNE AND MONITOR SPARTANBURG VOR -115.7		
0B 06	RETRFIVE CHARTS APPROACH PLATES	0.00	
0009D002	REVIEW CHARTS TO DETERMINE SPARTANBURG VOR FREQ	5.00	
SV 02	SET NAV-2 FREQ - WHOLE NO.S	2.93	
SV 01	MON NAV-2 FREQ INDIC	4.91	
SV 03	SET NAV-2 FREQ - FRACTIONS	1.98	
SV 11	SET COMM 2 FILTER SEL SW TO RANGE	2.09	
SV 12	SET COMM 2 NAV-2 NAV RECVR SW TO ON	1.40	
SH 03	MON VOR POINTER NO.2 ON VOR/RMI 2 INDIC	2.27	
1P090065	CALL OUT - [SPARTANBURG VOR ON NAV 2]	2.50	
00EV15	C/P EXT VIS SCAN		
0A 13	CRWMBR EXTERNAL VISION SCAN	300.00	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44



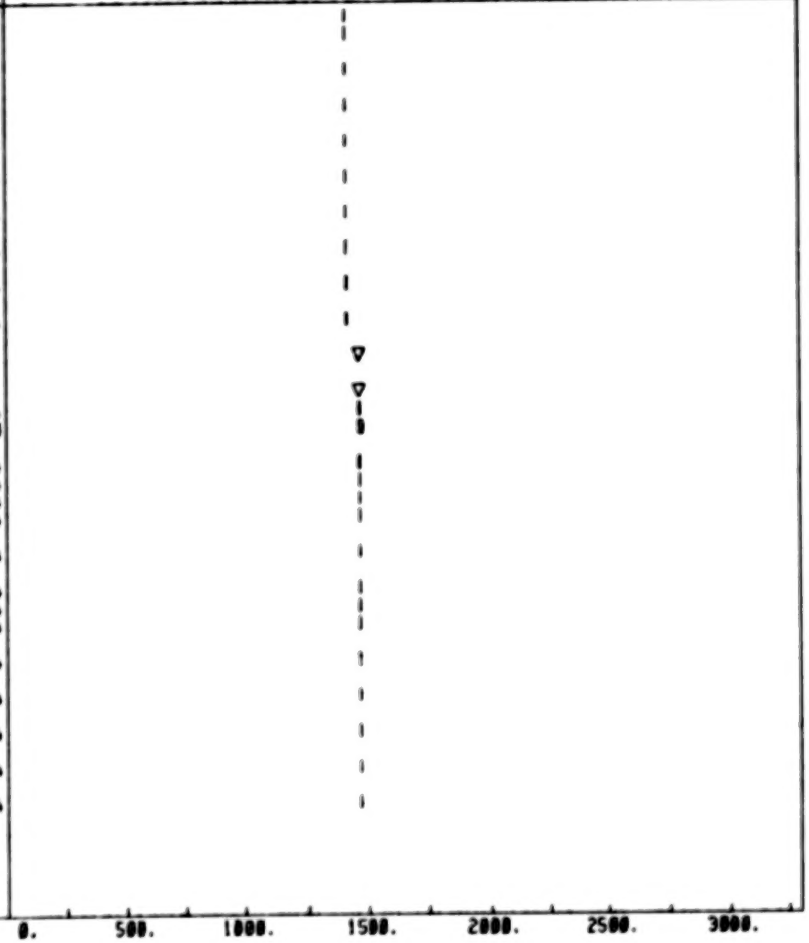
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
030007	ENGINE INSTRUMENT SCAN		V
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I

0. 500. 1000. 1500. 2000. 2500. 3000.

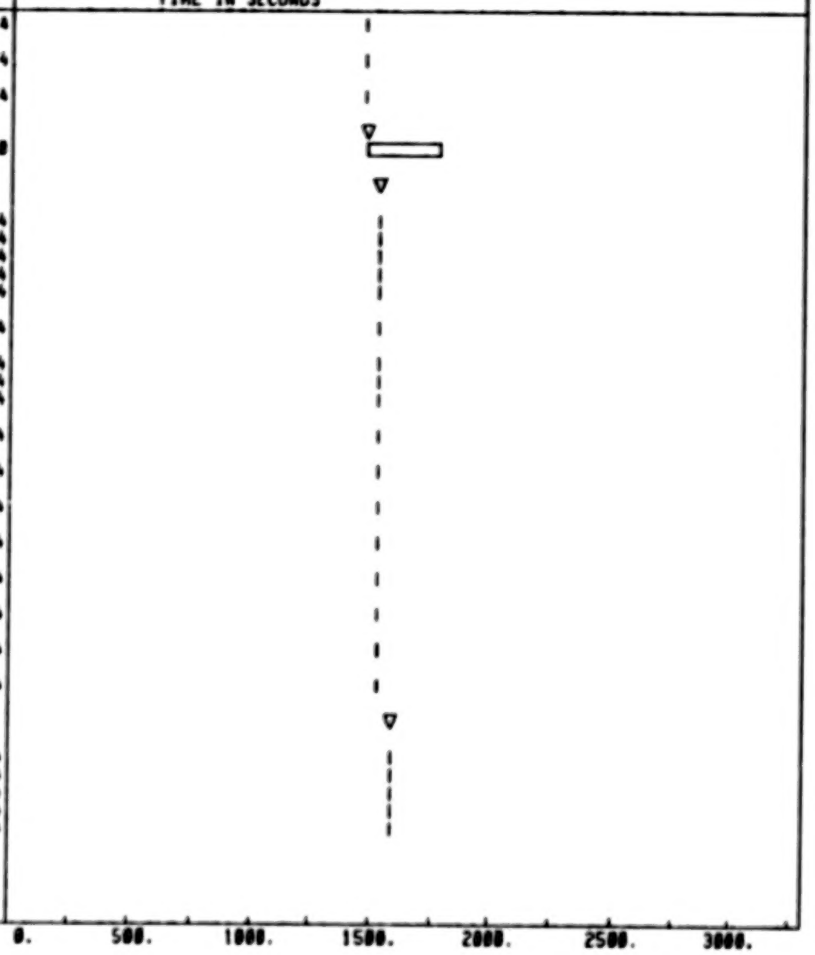
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
00EV05	C/P EXT VIS SCAN		
00EV05	C/P EXT VIS SCAN		
BA 11	CRWMBR EXTERNAL VISION SCAN	25.00	
BA 11	CRWMBR EXTERNAL VISION SCAN	25.00	
090048	TUNE TO GORDONVILLE VOR -115.6		
00 06	RETRETVE CHARTS APPROACH PLATES	6.00	
00090003	REVIEW CHARTS TO DETERMINE GORDONSVILLE VOR FREQ	5.00	
SU 01	MON NAV-1 FREQ INDIC	5.00	
SU 02	SET NAV-1 FREQ - WHOLE NO.S	3.00	
SU 03	SET NAV-1 FREQ - FRACTIONS	2.00	
SU 11	SET COMM 2 FILTER SEL SW TO RANGE	2.00	
SU 12	SET COMM 2 NAV-1 NAV RCVR SW TO ON	2.44	
1P090066	CALL OUT - (GORDONSVILL VOR ON NAV 1)	2.50	
SW 02	MON VOR POINTER NO.1 ON VOR/RMI 2 INDIC	2.27	
030007	ENGINE INSTRUMENT SCAN		
00EV12	C/P EXT VIS SCAN		
BA 12	CRWMBR EXTERNAL VISION SCAN	60.00	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 25	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
038007	ENGINE INSTRUMENT SCAN	
00EV03	C/P EXT VIS SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
BA 10	CRWMBR EXTERNAL VISION SCAN	15.00
7F 25	MON ENG NO 1 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
00EV15	C/P EXT VIS SCAN	
8A 13	CRWMBR EXTERNAL VISION SCAN	300.00
03E007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
03E007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44



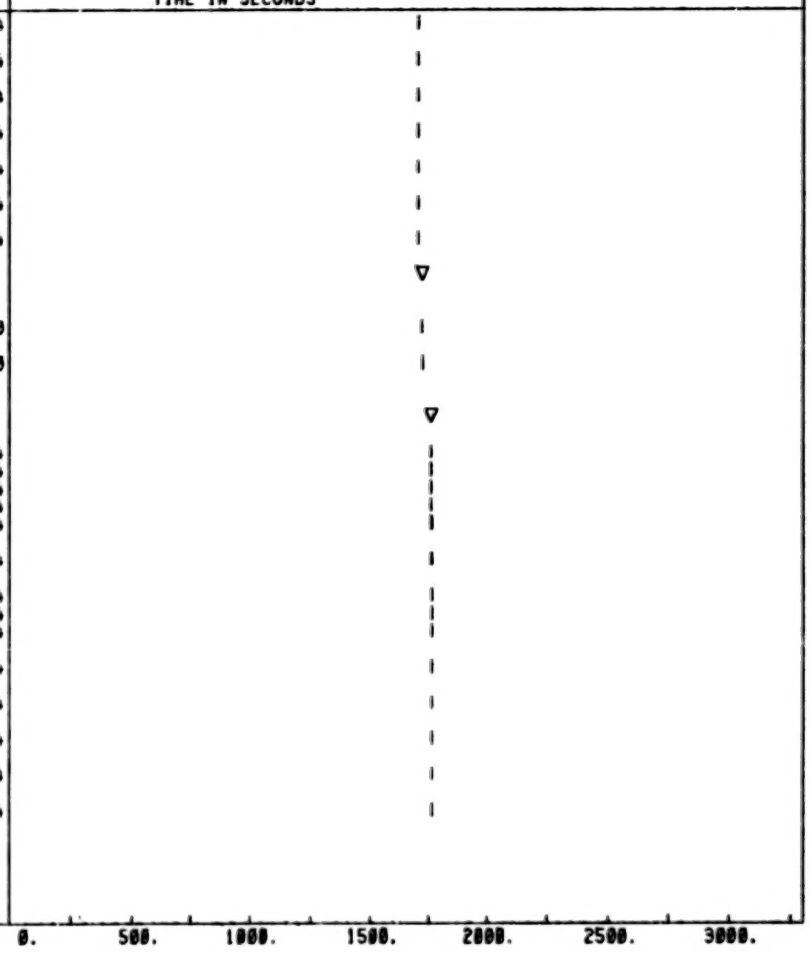
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
090042	TURN COMPLETE - ON HDG 047.		▽
090043	RECEIVE CLEARANCE TO CLIMB TO 33000 FT		▽
1B 19	MON VHF-2 COMM AUDIO	7.00	I
1P090054	MON RADIO COMM - (NASA 515, CLIMB AND MAINTAIN FLIGHT LVL THREE THREE ZERO.	3.50	I
1P090055	CONTACT CENTER ON ONE THREE FOUR POINT FIVE FIVE, OVER)	3.50	I
1P090056	RADIO COMM -[NASA 515, ROGER, MAINTAIN FLIGHT LEVEL THREE THREE ZERO, CENTER	4.00	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.00	I
1B 17	COMM VIA VHF-2	6.00	I
1P090057	ON ONE THREE FOUR POINT FIVE FIVE.]	2.00	I
1B 02	SET VHF-2L FREQ-WHOLE NO.5	2.90	I
1B 01	MON VHF-2L FREQ IND	4.00	I

0. 500. 1000. 1500. 2000. 2500. 3000.

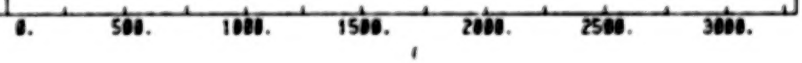
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B 03	SET VHF-2L FREQ - FRACTIONS	1.98	
1B 05	SET VHF-2 COMM TFR SW TO LEFT	1.45	
1P090050	RADIO COMM -(ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO NINER ZERO FOR	4.00	
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.00	
1B 17	COMM VIA VHF-2	6.00	
1P090059	FLIGHT LEVEL THREE THREE ZERO, OVER)	2.00	
1P090060	MON RADIO COMM -(NASA 515, ATLANTA CENTER, ROGER, SQUAWK IDENT	3.50	
1B 18	MON VHF-2 COMM AUDIO	3.50	
1N 07	PRESS ATC IDENT SW	2.14	
1P090061	MON RADIO COMM -(NASA 515, RADAR CONTACT, REPORT LEVEL AT FLIGHT	3.50	
1B 28	MON VHF-2 COMM AUDIO	5.50	
1P090062	LEVEL THREE THREE ZERO, OVER)	2.00	
1P090082	RADIO COMM -(NASA 515, ROGER)	1.70	
1B 14	ACT PUSH-TO-TALK SW ON HANDGRIP	1.70	
1B 15	COMM VIA VHF-2	1.70	
030007	ENGINE INSTRUMENT SCAN		
7F 38	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	

0. 500. 1000. 1500. 2000. 2500. 3000.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
090045	CLIMB THRU 32000 FT. BEGIN 500 FT/MIN RATE OF CLIMB.	
3H 02	MON CORR BARO ALT INDIC	0.60
1P090067	CALL OUT - [ONE THOUSAND FEET TO LEVEL OF]	1.70
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
00EV03	C/P EXT VIS SCAN		
BA 10	CRWMBR EXTERNAL VISION SCAN	15.00	
00EV01	C/P EXT VIS SCAN		
BA 10	CRWMBR EXTERNAL VISION SCAN	5.00	



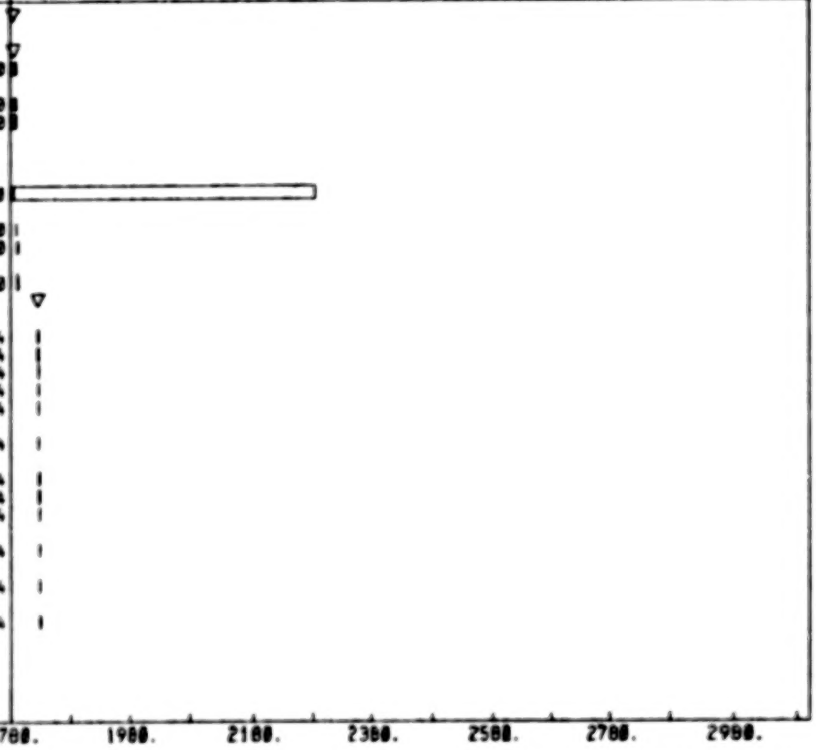
UNSHIFTED

MISSION TIMELINE
MISSION - NSNIIN FLT PHASES
MANUAL CONTROL
CONFIGURATION - NASA 515 - FFD
FLIGHT PHASE -CRUISE - NORMAL OPS

CREWMEMBER - COPILOT

NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
110002	REPORT REACHING 33000 FT.	
00EV17	C/P EXT VIS SCAN	
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.20
1B 32	COMM VIA VHF-2	4.20
1P110001	RADIO COMM -(ATLANTA CENTER, THIS IS NASA 515 LEVEL AT FLIGHT LEVEL THREE THREE	4.00
8A 14	CRWMBR EXTERNAL VISION SCAN	500.00
1P110002	ZERO, OVER)	0.20
1P110003	MON RADIO COMM - [NASA 515, ROGER]	1.70
1B 20	MON VHF-2 COMM AUDIO	1.70
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I

1780. 1980. 2180. 2380. 2580. 2780. 2980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 92	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	

1700. 1900. 2100. 2300. 2500. 2700. 2900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44

TIME IN SECONDS

1700. 1900. 2100. 2300. 2500. 2700. 2900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
110004	PILOT REQUESTS RETURN TO ATLANTA CONTROLLER COORDINATES WITH ADJACENT SECTORS FOR RETURN VECTORS.	
1P110004	RADIO COMM -[ATLANTA CENTER, THIS IS NASA 515. REQUEST VECTORS FOR RETURN TO	4.00
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00
1B 17	COMM VIA VHF-2	5.00
1P110005	ATLANTA, OVER]	1.00
1B 28	MON VHF-2 COMM AUDIO	3.00
1P110006	MON RADIO COMM -[NASA 515, ROGER. STANDBY FOR INSTRUCTIONS]	3.00
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44

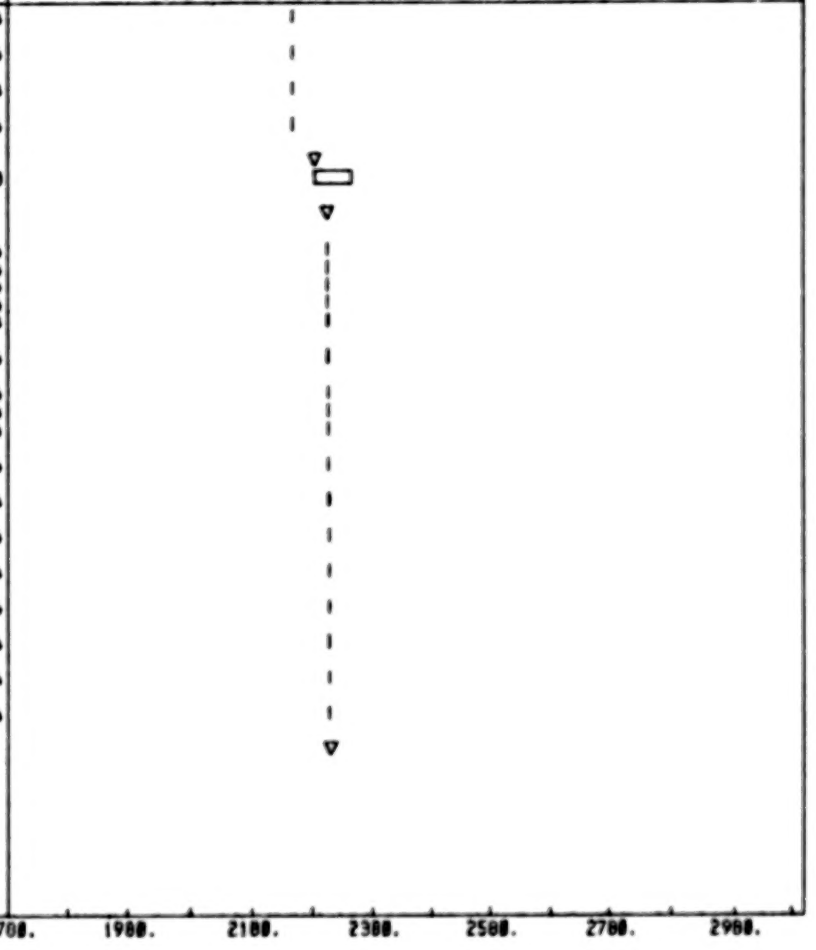
TIME IN SECONDS

1700. 1900. 2100. 2300. 2500. 2700. 2900.

CODE	EVENT/PROCEDURE GR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	

1700. 1900. 2100. 2300. 2500. 2700. 2900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
00EV12	C/P EXT VIS SCAN	
BA 12	CRWMBR EXTERNAL VISION SCAN	60.00
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
110005	RECEIVE VECTORS FOR THE LANIER SIX STAR, PULASKI TRANSITION	



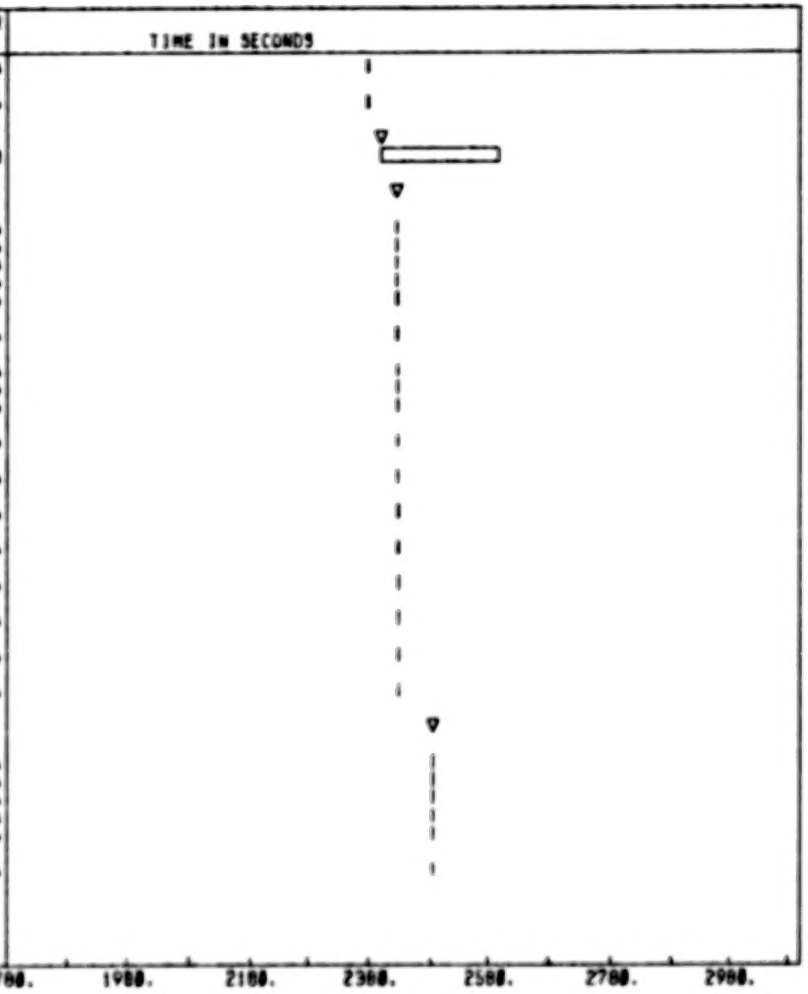
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P110007	NON RADIO COMM - (NASA 515, FOR VECTOR TO INTERCEPT LANIER SIX ARRIVAL,	3.66	
1B 36	MONITOR VHF-2 COMM AUDIO	11.00	
1P110008	PULASKI TRANSITION, TURN LEFT HEADING TWO SEVEN ZERO, CONTACT ATLANTA CENTER	4.00	
1P110009	ON ONE THREE FIVE POINT THREE FIVE, OVER)	2.44	
1P110010	RADIO COMM -(515, ROGER, LEFT HEADING TWO SEVEN ZERO, LANIER SIX ARRIVAL,	4.00	
1B 26	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	7.00	
1B 17	COMM VIA VHF-2	7.00	
1P110011	CENTER ONE THREE FIVE POINT THREE FIVE.)	3.00	
110007	TUNE RADIN ULTRA HIGH SECTOR -135.35		
1B 07	MON VHF-2B FREQ IND	4.06	
1B 08	SET VHF-2B FREQ - WHOLE NO.S	2.00	
1B 09	SET VHF-2B FREQ - FRACTIONS	1.98	
1B 06	SET VHF-2 COMM TFR SW TO RIGHT	1.45	
1B 28	ACTUATE COMM 2 PUSH-TO-TALK SW	5.00	
1B 17	COMM VIA VHF-2	7.00	
1P110012	RADIO COMM -(ATLANTA CENTER, THIS IS NASA 515 LEVEL AT THREE THREE ZERO TURNING	3.50	
1P110013	TO TWO SEVEN ZERO, OVER)	1.50	
1P110014	MON RADIO COMM - (NASA 515, ROGER, SQUAWK IDENT)	2.50	
1B 36	MONITOR VHF-2 COMM AUDIO	2.00	
1N 07	PRESS ATC IDENT SW	2.14	

1700. 1900. 2100. 2300. 2500. 2700. 2900.

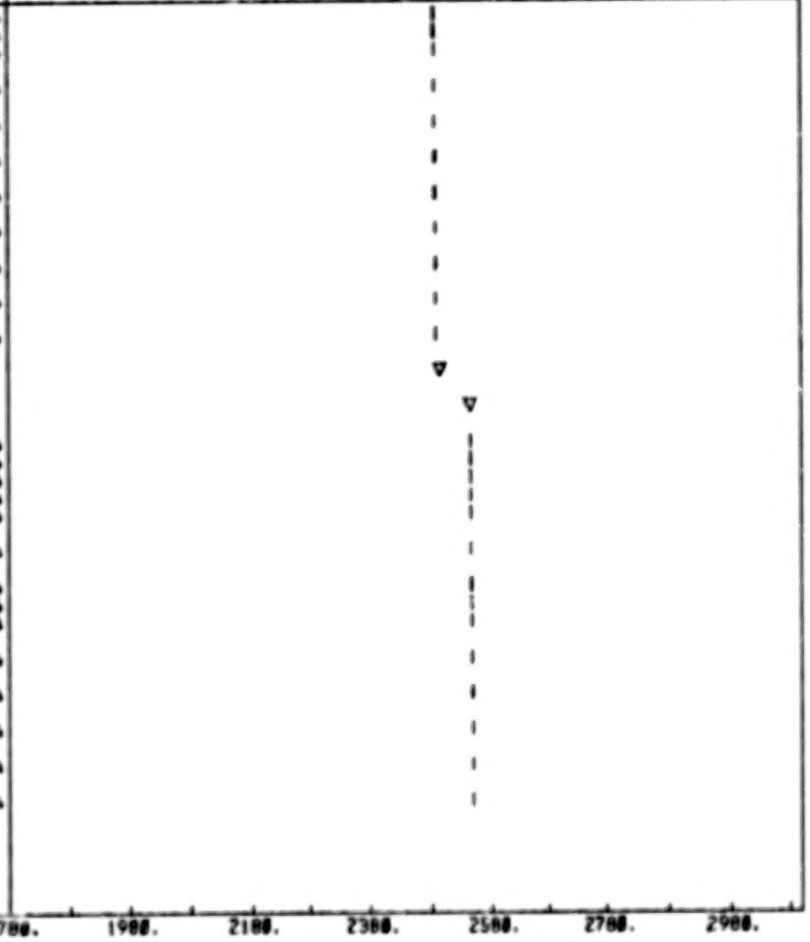
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P110015	MON RADIO COMM-(NASA SIS, RADAR CONTACT)	2.00	
1B 36	MONITOR VHF-2 COMM AUDIO	2.00	
110000	SET NAV-1 TO PULASKI VOR		
BB 06	RETREIVE CHARTS APPROACH PLATES	6.00	
BB110001	REVIEW CHARTS TO DETERMINE PULASKI VOR FREQ	5.00	
SU 01	MON NAV-1 FREQ INDIC	5.00	
SU 02	SET NAV-1 FREQ - WHOLE NO.S	3.00	
SU 03	SET NAV-1 FREQ - FRACTIONS	2.00	
1P110020	CALL OUT -(PULASKI VOR ON NAV 1)	2.50	
54 02	MON VOR POINTER NO.1 ON VOR/RMI 2 INDIC	2.27	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	

1700. 1900. 2100. 2300. 2500. 2700. 2900.

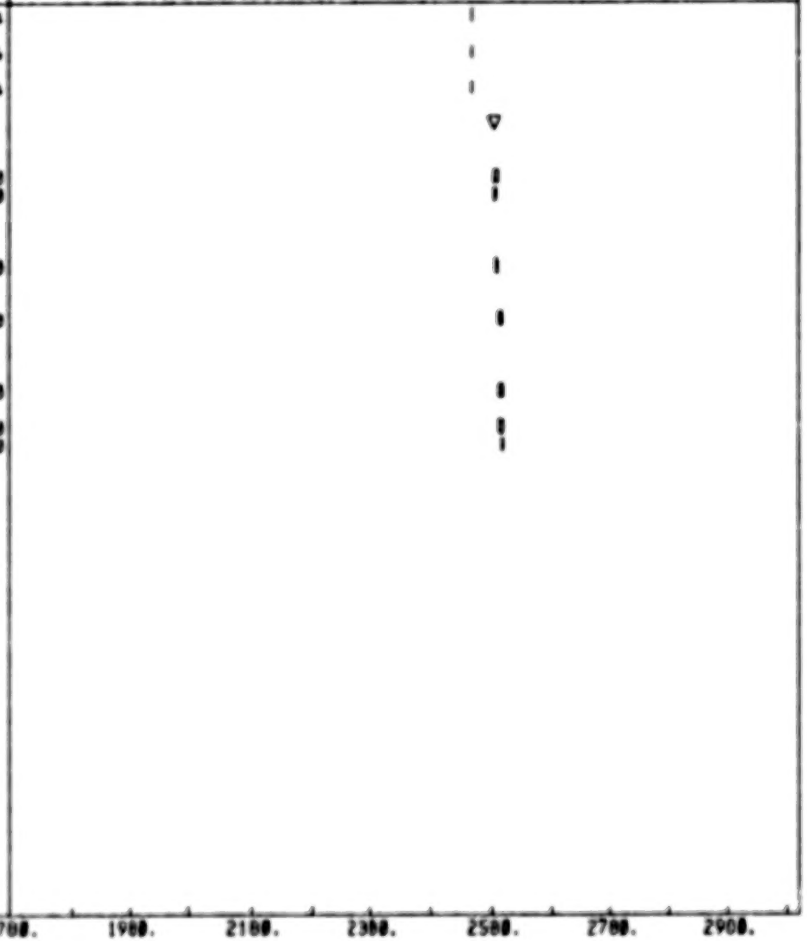
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
00EV14	C/P EXT VIS SCAN	
BA 13	CRWMBR EXTERNAL VISION SCAN	200.00
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
110009	TURN COMPLETE - ON HDG 270	
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 19	MON NO 2 ENG OIL QTY INDIC	8.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	8.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	8.44
110010	RECEIVE INSTRUCTIONS TO DESCEND TO 31000 FT	
1B 19	MON VHF-2 COMM AUDIO	7.00
1P110016	MON RADIO COMM - [NASA 515, DESCEND AND MAINTAIN FLIGHT LEVEL THREE ONE ZERO. CONTACT CENTER ON ONE THREE TWO POINT SEVEN FIVE. OVER]	3.50
1P110017		3.50
1P110018	RADIO COMM - [NASA 515, ROGER. MAINTAIN FLIGHT LEVEL THREE ONE ZERO. CENTER	4.00
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.00
1B 17	COMM VIA VHF-2	6.00
1P110019	ONE THREE TWO POINT SEVEN FIVE.	2.00



UNSHIFTED

MISSION TIMELINE
MISSION - MSN11N FLT PHASES
MANUAL CONTROL
CONFIGURATION - NASA 515 - FFD
FLIGHT PHASE -DESCENT - FFD

CREWMEMBER - COPILOT

NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
140002	BEGIN DESCENT TO 31000FT	
00EV15	C/P EXT VIS SCAN	
140001	CONTACT PULASKI HIGH SECTOR -132.75	
8A 13	CRWMBR EXTERNAL VISION SCAN	300.00
1B 01	MON VHF-2L FREQ IND	4.00
1B 02	SET VHF-2L FREQ-WHOLE NO.S	2.90
1B 03	SET VHF-2L FREQ - FRACTIONS	1.90
1B 04	ADJ VHF-2 VOLUME	2.00
1B 28	ACTUATE COMM 2 PUSH-TO-TALK SW	6.00
1B 17	COMM VIA VHF-2	6.00
1P140001	RADIO COMM -[ATLANTA CENTER, THIS IS NASA 515 LEAVING FLIGHT LEVEL THREE THREE	4.00
1P140002	ZERO FOR FLIGHT LVL THREE ONE ZERO, OVER	2.00
1P140003	NON RADIO COMM - [NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT]	3.00
1B 20	MON VHF-2 COMM AUDIO	3.00
1N 06	MON IDENT CODE INDIC	0.77
1P140004	MON RADIO COMM - [NASA 515, RADAR CONTACT]	2.00
1B 36	MONITOR VHF-2 COMM AUDIO	2.00
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44

TIME IN SECONDS

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
140004	LEVEL OFF AT 31000 FT		▽
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 50	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
140005	RECEIVE VECTOR TO INTERCEPT PULASKI 225 RADIAL		▽

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P140005	MON RADIO COMM - (WRSA 515, FOR VECTOR TO INTERCEPT PULASKI TWO TWO FIVE	3.27	I
1B 36	MONITOR VHF-2 COMM AUDIO	12.00	I
1P140006	RADIAL, TURN LEFT HEADING TWO FOUR ZERO, CLEARED TO THE ATLANTA INTERNA-	4.36	I
1P140007	TIONAL AIRPORT VIA THE LANIER SIX AR- RIVAL, PULASKI TRAN- SITION, OVER]	4.36	I
1P140008	RADIO COMM -[515 ROGER, LEFT HEADING TWO FOUR ZERO FOR PULASKI TWO TWO FIVE	4.00	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.00	I
1B 17	COMM VIA VHF-2	6.00	I
1P140009	RADIAL, LANIER SIX ARRIVAL.]	2.50	I
140006	TURN TO HDG 240		▽
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
140009	TURN COMPLETE - ON HDG 240		▽
00E912	C/P EXT VIS SCAN		▽
8A 12	CRMMBR EXTERNAL VISION SCAN	60.00	□
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
140009	BEGIN TURN TO PULASKI 225 RADIAL		▽
00EV04	C/P EXT VIS SCAN		▽
BA 10	CRUMBO EXTERNAL VISION SCAN	20.00	D
140010	TURN COMPLETE - ON HDG 225		▽
140011	SET NAV-2 TO TOCCOA VOR -109.8		▽
BB 06	RETRIEVE CHARTS APPROACH PLATES	6.00	I
BB140001	REVIEW CHARTS TO DETERMINE TOCCOA VOR FREQ	5.00	I
SV 01	MON NAV-2 FREQ INDIC	4.91	I
SV 02	SET NAV-2 FREQ - WHOLE NO.S	2.93	I
SV 03	SET NAV-2 FREQ - FRACTIONS	1.98	I
IP140042	CALL OUT -(TOCCOA VOR ON NAV 2)	2.50	I

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME in SECONDS
1P 13	MDN VERBAL REPORT	2.50	
SM 03	MDN VOR POINTER NO.2 ON VOR/RMI 2 INDIC	2.27	
030007	ENGINE INSTRUMENT SCAN		
00EV17	C/P EXT VIS SCAN		
7F 25	MDN ENG NO 1 EPR IND	0.44	
7F 30	MDN ENG NO 2 EPR IND	0.44	
BA 14	CRWMBR EXTERNAL VISION SCAN	500.00	
7F 22	MDN NO 2 ENG N1 IND	0.44	
7F 21	MDN NO 1 ENG N1 IND	0.44	
7F 32	MDN ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MDN ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MDN NO 2 ENG N2 IND	0.44	
7F 23	MDN NO 1 ENG N2 IND	0.44	
7F 34	MDN ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MDN ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MDN NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MDN NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MDN NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MDN NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MDN NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MDN NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MDN NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MDN ENG NO 1 EPR IND	0.44	
7F 30	MDN ENG NO 2 EPR IND	0.44	
7F 22	MDN NO 2 ENG N1 IND	0.44	
7F 21	MDN NO 1 ENG N1 IND	0.44	
7F 32	MDN ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MDN ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MDN NO 2 ENG N2 IND	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
140812	HANDOFF TO LANIER HIGH SECTOR		▽
1P140810	MON RADIO COMM - (NASA 515, CONTACT CENTER ON ONE THREE TWO POINT EIGHT.OVER	3.50	I
1B 18	MON VHF-2 COMM AUDIO	3.50	I
1B 16	COMM VIA VHF-2	3.50	I
1P140811	RADIO COMM - (NASA 515, ROGER. ONE THREE TWO POINT EIGHT.)	3.50	I
1B 24	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	3.50	I
1B 07	MON VHF-2R FREQ IND	4.86	I
1B 08	SET VHF-2R FREQ - WHOLE NOS	2.88	I
1B 09	SET VHF-2R FREQ - FRACTIONS	1.98	I
1B 06	SET VHF-2 COMM TFR SW TO RIGHT	1.45	I
1B 17	COMM VIA VHF-2	4.00	I
1P140812	RADIO COMM - (ATLANTA CENTER, NASA 515 LEVEL AT FLIGHT LVL THREE ONE ZERO.OVER)	4.00	I
1B 28	ACTUATE COMM 2 PUSH-TO-TALK SW	4.00	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B 20	MON VHF-2 COMM AUDIO	3.00	
1P140013	MON RADIO COMM - [NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT]	3.00	
1N 07	PRESS ATC IDENT SW	2.14	
1B 36	MONITOR VHF-2 COMM AUDIO	2.00	
1P140014	MON RADIO COMM- [NASA 515, RADAR CONTACT]	2.00	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
140813	RECEIVE INSTRUCTIONS TO DESCEND TO 24000 FT		▽
1P140815	MON RADIO COMM -[NASA 515, DESCEND AND MAINTAIN FLIGHT LEVEL TWO FOUR ZERO.	3.90	I
1B 36	MONITOR VHF-2 COMM AUDIO	6.50	I
1P140816	REPORT LEAVING FLT LEVEL TWO SIX ZERO, OVER]	2.60	I
1P140817	RADIO COMM -[515, ROGER. MAINTAIN FLT LEVEL TWO FOUR ZERO. REPORT FLIGHT LEVEL	4.00	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	I
1B 17	COMM VIA VHF-2	5.00	I
140814	BEGIN MACH 0.75 DESCENT		▽
1P140818	TWO SIX ZERO]	1.00	I
030F07	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 25	MDN ENG NO 1 EPR IND	0.44	
7F 21	MDN NO 1 ENG N1 IND	0.44	
7F 22	MDN NO 2 ENG N1 IND	0.44	
7F 31	MDN ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MDN ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MDN NO 1 ENG N2 IND	0.44	
7F 24	MDN NO 2 ENG N2 IND	0.44	
7F 33	MDN ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MDN ENG NO 2 FUEL FLOW INDIC	0.44	
7F 89	MDN NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MDN NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MDN NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MDN NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MDN NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MDN NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MDN NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MDN ENG NO 1 EPR IND	0.44	
7F 58	MDN ENG NO 2 EPR IND	0.44	
7F 22	MDN NO 2 ENG N1 IND	0.44	
7F 21	MDN NO 1 ENG N1 IND	0.44	
7F 32	MDN ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MDN ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MDN NO 2 ENG N2 IND	0.44	
7F 23	MDN NO 1 ENG N2 IND	0.44	
7F 34	MDN ENG NO 2 FUEL FLOW INDIC	0.44	
7F 53	MDN ENG NO 1 FUEL FLOW INDIC	0.44	
7F 89	MDN NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MDN NO 2 ENG OIL TEMP INDIC	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 22	MON NO 1 ENG N1 IND	0.44	I
7F 21	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
050007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
140015	REACH 26000 FT		▽
140016	RECEIVE CLEARANCE TO DESCEND TO 11000 FT.		▽
3H 02	MON CORR BARO ALT INDIC	0.60	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.00	I
1B 17	COMM VIA VHF-2	4.00	I
1P140019	RADIO COMM -(ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO SIX ZERO, OVER)	4.00	I
1B 19	MON VHF-2 COMM AUDIO	6.20	I
1P140020	MON RADIO COMM -(NASA 515, DESCEND AND MAINTAIN ONE ONE THOUSAND. CONTACT	3.75	I
1P140021	CENTER ON ONE TWO FIVE POINT TWO,OVER)	2.50	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.00	I
1B 17	COMM VIA VHF-2	4.00	I
1P140022	RADIO COMM -(NASA 515, ROGER, MAINTAIN ONE ONE THOUSAND,	2.00	I
1P140023	CENTER ONE TWO FIVE POINT TWO.)	1.00	I
140017	TUNE NORCROSS LOW SECTOR -125.2		▽
1B 01	MON VHF-2L FREQ IND	4.00	I
1B 02	SET VHF-2L FREQ-WHOLE NO.S	2.90	I
1B 03	SET VHF-2L FREQ - FRACTIONS	1.90	I
1B 05	SET VHF-2 COMM IFR SW TO LEFT	1.45	I
1B 17	COMM VIA VHF-2	6.00	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P140024	RADIO COMM -(ATLANTA CENTER, THIS IS NASA SIS LEAVING FLIGHT LEVEL TWO FIVE ZERO	4.00	I
1B 28	ACTUATE COMM 2 PUSH-TO-TALK SW	6.00	I
1P140025	FOR ONE ONE THOUSAND, OVER)	2.00	I
1P140026	MON RADIO COMM -(NASA SIS, ATLANTA CENTER, ROGER, SQUAWK IDENT, ALTI-	3.50	I
1B 18	MON VHF-2 COMM AUDIO	6.00	I
1P140027	METER TWO NINER POINT EIGHT EIGHT)	2.50	I
140018	SET ALTIMETER BARO SETTING TO 29.88		▽
1P140043	CALL OUT -(ALTIMETER SETTING IS TWO NINER POINT EIGHT)	2.40	I
1N 07	PRESS ATC IDENT SW	2.14	I
140032	ALTIMETER BARO SET PROC		▽
3H 04	MONITOR ALTIMETER BARO SETTING INDIC	2.65	I
3H 03	SET ALTIMETER BARO SETTING CONTROL	2.65	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 90	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 1 ENG OIL TEMP INDIC	0.44	I

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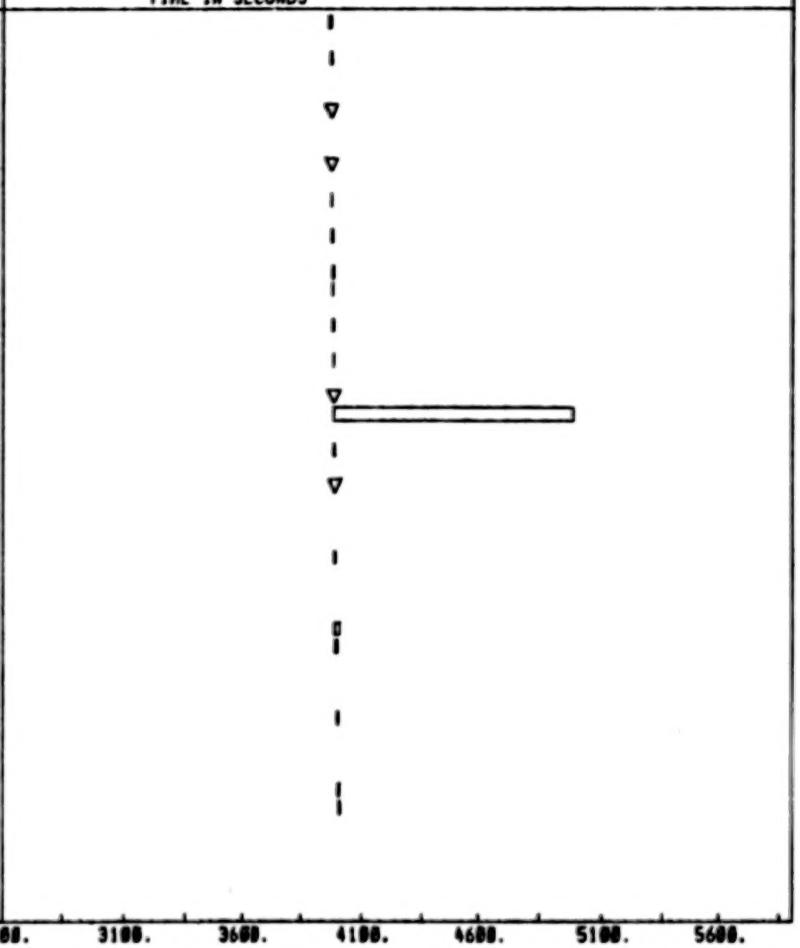
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
00EV03	C/P EXT VIS SCAN		
00EV05	C/P EXT VIS SCAN		
0A 10	CRWMBR EXTERNAL VISION SCAN	15.00	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 50	MON ENG NO 2 EPR IND	0.44	
0A 10	CRWMBR EXTERNAL VISION SCAN	15.00	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
140019	CROSS TOCCOR VOR		
140020	TUNE NORCROSS VOR -116.6		

2600. 3100. 3600. 4100. 4600. 5100. 5600.

[illegible]

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
BB 06	RETREIVE CHARTS APPROACH PLATES	6.00
BB140002	REVIEW CHARTS TO DETERMINE NORCROSS VOR FREQ	5.00
140022	REACH 17000 FT. BEGIN 500 FT/MIN RATE OF DESCENT	
140023	REPORT 1000 FT TO LEVEL OFF	
SH 02	MON CORR BARO ALT INDIC	2.13
1P140045	CALL OUT -[1000 FEET TO LEVEL OFF]	1.70
SU 01	MON NAV-1 FREQ INDIC	5.00
SU 02	SET NAV-1 FREQ - WHOLE NO.S	3.00
SU 03	SET NAV-1 FREQ - FRACTIONS	2.00
1P140044	CALL OUT -[NORCROSS VOR ON NAV 1]	2.30
00EV18	C/P EXT VIS SCAN	
BA 14	CRWMBR EXTERNAL VISION SCAN	1000.00
SH 02	MON VOR POINTER NO.1 ON VOR/RMI 2 INDIC	2.27
140021	RECEIVE INSTRUCTIONS TO GO INTO A HOLDING PATTERN AT LANIER INTERSECTION	
1P140028	MON RADIO COMM -[NASA 515, MAINTAIN ONE FIVE THOUSAND, CLEARANCE LIMIT IS	4.00
1B 37	MONITOR VHF-2 COMM	16.00
1P140029	NOW LANIER INTERSEC-TION, HOLD NORTHWEST OF FIX ON NORCROSS ZERO FOUR ONE RADIAL	5.33
1P140030	ONE AND ONE-HALF MINUTE RIGHT TURNS. EXPECT FURTHER CLEARANCE AT ONE	5.33
1P140031	SEVEN ONE FIVE.OVER]	1.33
1B 17	COMM VIA VHF-2	6.00



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
1P140032	RADIO COMM -[515, ROGER. MAINTAIN ONE FIVE THOUSAND. HOLD NORTHWEST OF LANIER	4.50
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.00
1P140033	INTERSECTION. RIGHT TURNS.]	1.50
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 90	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
140024	REACH 16000 FT. BEGIN DECELLERATION TO 210 KIAS.	
140025	TUNE CHATTANOOGA VOR -115.0	
0B 07	STOW CHARTS	5.91
0B140003	REVIEW CHARTS TO DETERMINE CHATTANOOGA VOR FREQ	5.00

TIME IN SECONDS

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
SV 02	SET NAV-2 FREQ - WHOLE NO.S	2.93
SV 01	MON NAV-2 FREQ INDIC	4.91
SV 03	SET NAV-2 FREQ - FRACTIONS	1.98
1P140046	CALL OUT -(CHATA-NO.6A VOR ON NAV 2)	2.30
SH 03	MON VOR POINTER NO.2 ON VOR/AMI 2 INDIC	2.27
030007	ENGINE INSTRUMENT SCAN	
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRA-TION AMPLITUDE INDIC	0.44
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44

TIME IN SECONDS

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 89	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 89	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

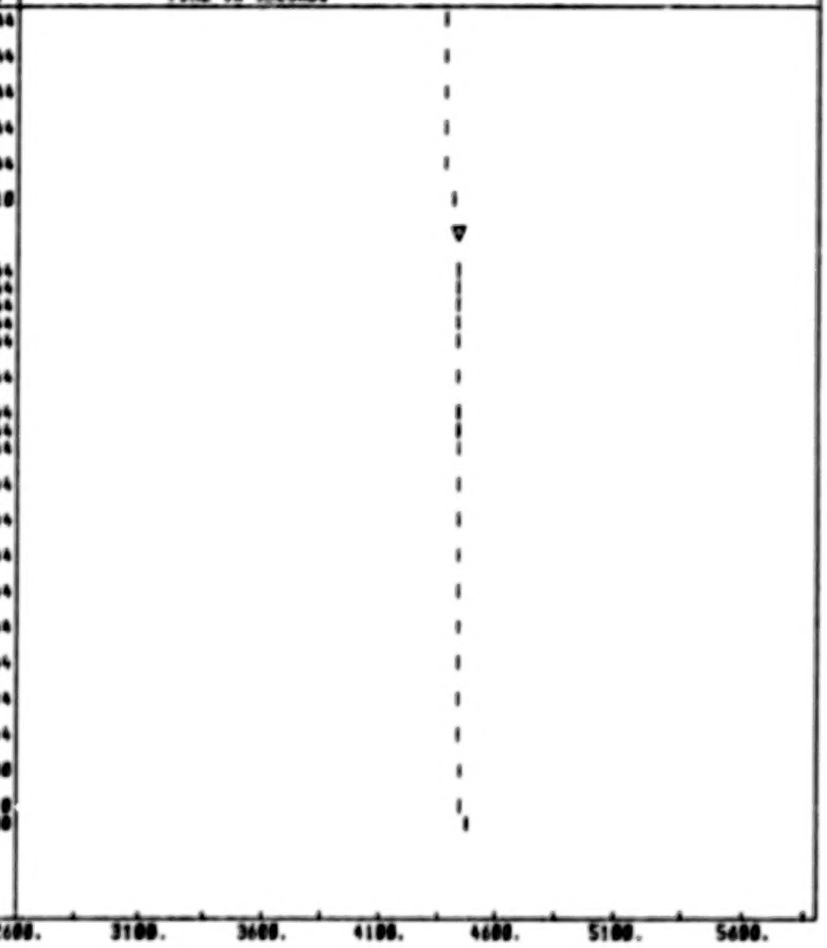
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 19	MON NO 2 ENG OIL QTY INDIC	8.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	8.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	8.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	8.44	I
7F 30	MON ENG NO 2 EPR IND	8.44	I
7F 22	MON NO 2 ENG N1 IND	8.44	I
7F 21	MON NO 1 ENG N1 IND	8.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	8.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	8.44	I
7F 24	MON NO 2 ENG N2 IND	8.44	I
7F 23	MON NO 1 ENG N2 IND	8.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	8.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	8.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	8.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	8.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	8.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	8.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	8.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	8.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	8.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	8.44	I
7F 25	MON ENG NO 1 EPR IND	8.44	I
7F 21	MON NO 1 ENG N1 IND	8.44	I
7F 22	MON NO 2 ENG N1 IND	8.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	8.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	8.44	I
7F 23	MON NO 1 ENG N2 IND	8.44	I

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
140827	HOLDING PATTERN PROC -RIGHT TURNS -1 1/2 MIN. LEGS -1 LOOP -INITIATE FIRST TURN OVER INTERSECTION		
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

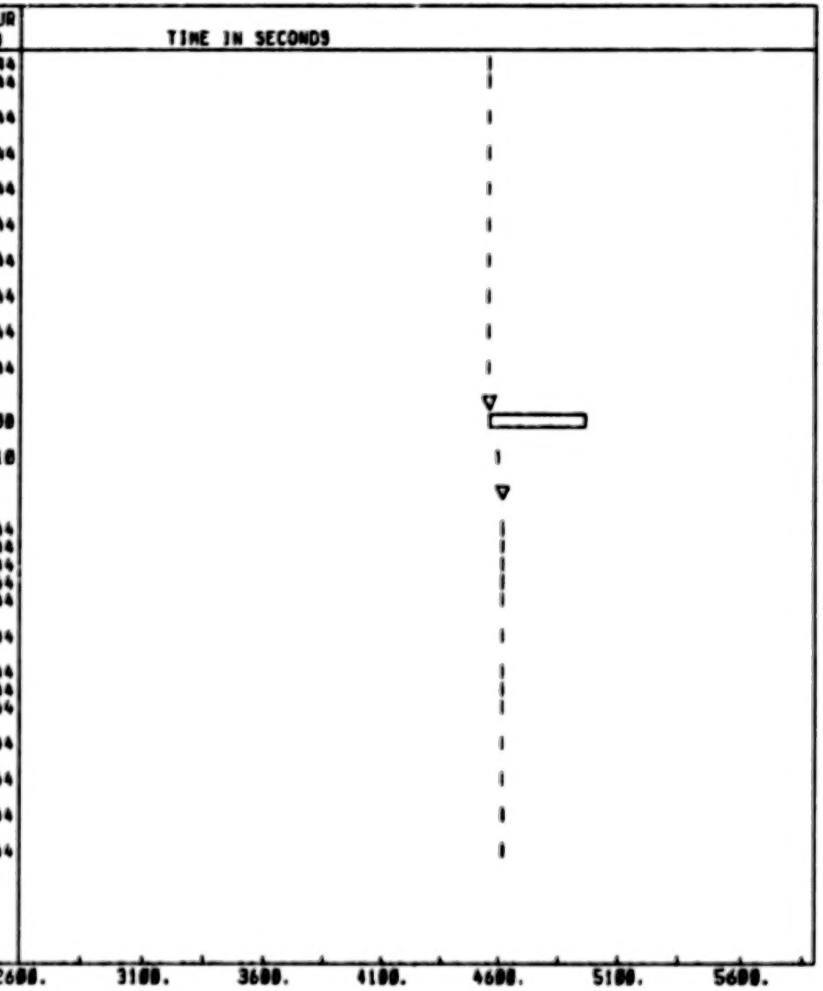
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
3N 03	START ELAPSEC TIME INDIC	2.10
630007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 26	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
IP140047	CALL OUT -(THIRTY SECONDS)	0.00
3N 02	MONITOR CLOCK	2.10
IP140048	CALL OUT -(SIXTY SECONDS)	0.00



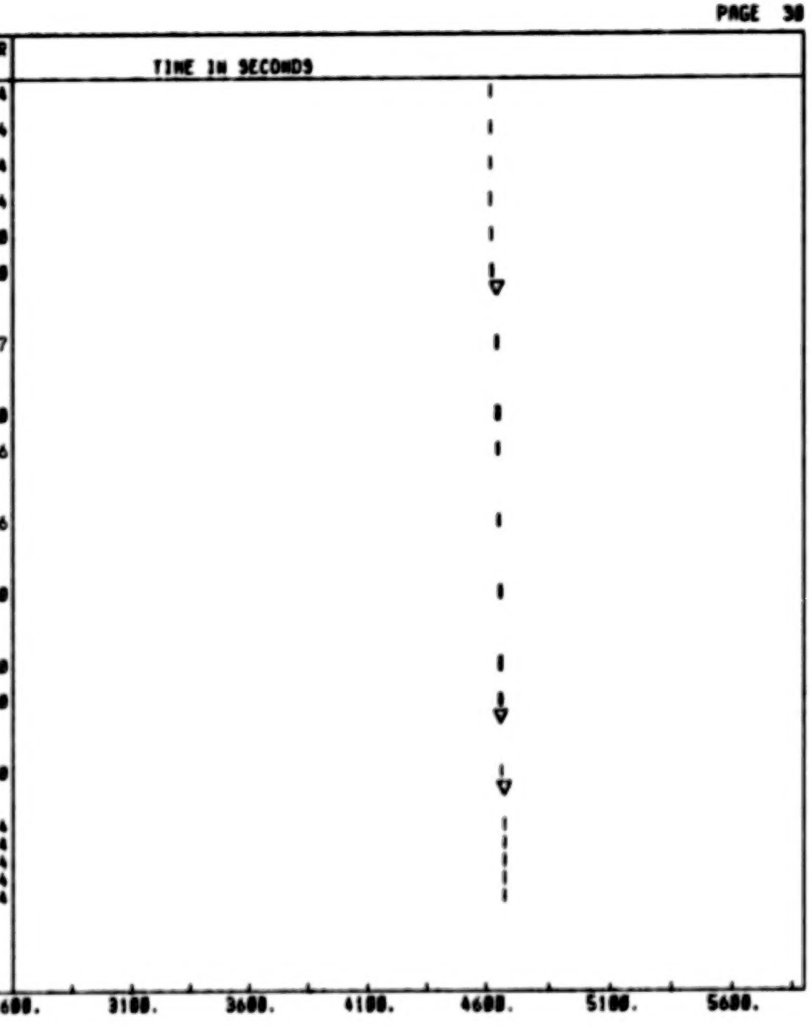
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3N 02	MONITOR CLOCK	2.10	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
1P140049	CALL OUT -[EIGHTY FIVE SECONDS]	0.80	
3N 02	MONITOR CLOCK	2.10	
9N 04	RESET ELAPSED TIME INDIC	2.10	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

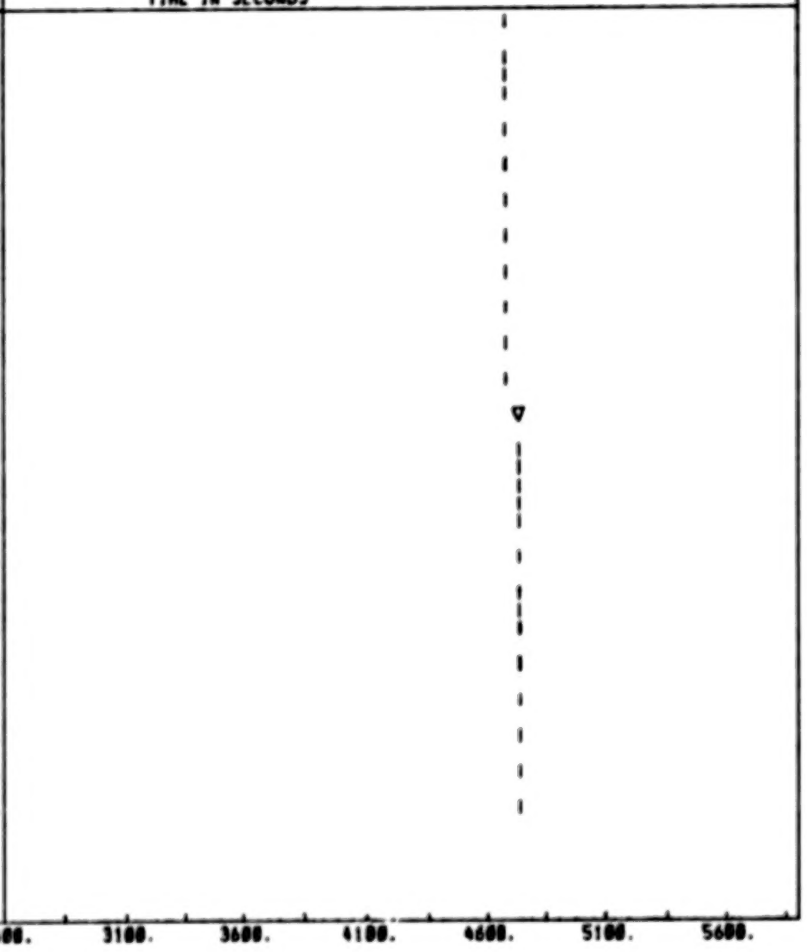
CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
00EV16	C/P EXT VIS SCAN	
0A 13	CRWMBR EXTERNAL VISION SCAN	400.00
3N 03	START ELAPSED TIME INDIC	2.10
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
1P140047	CALL OUT -(THIRTY SECONDS)	0.00
3N 02 140020	MONITOR CLOCK RECEIVE CLEARANCE TO CONTINUE DESCENT AND APPROACH	2.10
1P140034	MON RADIO COMM -(NASA 515, CLEARED TO ATLANTA INTERNATIONAL AIRPORT VIA	3.27
1B 36	MONITOR VHF-2 COMM AUDIO	12.00
1P140035	LAST ROUTING CLEARED . INCREASE SPEED TO TWO THREE ZERO KNOTS . DESCEND AND MAINTAIN ONE ONE THOUSAND, EXPECT AN ILS RUNWAY ZERO EIGHT APPROACH, OVER)	4.36
1P140036	RADIO COMM -(515, ROGER. INCREASE SPD TWO THREE ZERO. MAINTAIN ONE ONE	4.36
1P140037	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.50
1B 25	COMM VIA VHF-2	5.00
1B 17 140029	BEGIN DESCENT. SET THRUST FLIGHT IDLE	5.00
1P140038 030007	THOUSAND) ENGINE INSTRUMENT SCAN	0.50
7F 30	MON ENG NO 2 EPR IND	0.44
7F 25	MON ENG NO 1 EPR IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44
030007	ENGINE INSTRUMENT SCAN	
7F 25	MON ENG NO 1 EPR IND	0.44
7F 30	MON ENG NO 2 EPR IND	0.44
7F 22	MON NO 2 ENG N1 IND	0.44
7F 21	MON NO 1 ENG N1 IND	0.44
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44
7F 24	MON NO 2 ENG N2 IND	0.44
7F 23	MON NO 1 ENG N2 IND	0.44
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44
7F 10	MON NO 2 ENG OIL TEMP INDIC	0.44
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44



CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
140823	REPORT 1000 FT TO LEVEL OFF		
3H 02	MON CORR BARO ALT INDIC	2.13	
1P140045	CALL OUT -(1000 FEET TO LEVEL OFF)	1.70	
160000	TURN ON LANDING LTS		
7G 17	SET LANDING LIGHTS SW TO ON	2.20	
140830	REACH 11000 FT AT 230 KIAS		
140831	HANDOFF TO ATLANTA APPROACH CONTROL		
1B 20	MON VHF-2 COMM AUDIO	5.00	
1P140039	MON RADIO COMM - (NASA 515, CONTACT APPROACH CONTROL ON ONE TWO SIX POINT NINER, OVER)	4.00	
1P140040		1.00	
030007	ENGINE INSTRUMENT SCAN		
1P140041	RADIO COMM -(NASA 515, ROGER, APPROACH ON ONE TWO SIX POINT NINER)	4.00	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 38	MON ENG NO 2 EPR IND	0.44	

2600. 3100. 3600. 4100. 4600. 5100. 5600.

CODE		EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B	25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	4.00	I
1B	17	COMM VIA VHF-2	4.00	I
7F	21	MON NO 1 ENG N1 IND	0.44	I
7F	22	MON NO 2 ENG N1 IND	0.44	I
7F	31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F	32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F	23	MON NO 1 ENG N2 IND	0.44	I
7F	24	MON NO 2 ENG N2 IND	0.44	I
7F	33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F	34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F	09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F	10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F	18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F	11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F	19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F	12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F	20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I

2600. 3100. 3600. 4100. 4600. 5100. 5600.

UNSHIFTED

MISSION TIMELINE
MISSION - MSN11N FLT PHASES
MANUAL CONTROL
CONFIGURATION - NASA 515 - FFD
FLIGHT PHASE - APP AND LAND - FFD
ILS PROCEDURAL

CREWMEMBER - COPILOT

NOVEM 1978

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
160001	TUNE ATLANTA APPROACH CONTROL -126.9	
00EV02	C/P EXT VIS SCAN	
1B 07	MON VHF-2R FREQ IND	4.86
1B 08	SET VHF-2R FREQ - WHOLE NO.S	2.88
8A 10	CRWMBR EXTERNAL VISION SCAN	10.00
1B 09	SET VHF-2R FREQ - FRACTIONS	1.98
160002	TUNE ATIS -129.7	
1A 07	MON VHF-1R FREQ IND	4.96
1A 08	SET VHF-1R FREQ. WHOLE NO.S	2.81
1A 09	SET VHF-1R FREQ - FRACTIONS	1.98
1A 06	SET VHF-1 COMM TFR SW TO RIGHT	2.39
1A 17	SET COMM 2 VHF-1 COMM RECVR SW TO ON	1.52
1P160001	MON RADIO COMM - [INFORMATION LIMA ONE SEVEN ZERO FIVE OBSERVATION- TWO	3.42
1A 15	MON VHF-1 COMM AUDIO	24.00
00EV00	C/P EXT VIS SCAN	
8A 11	CRWMBR EXTERNAL VISION SCAN	40.00
1P160002	FIVE HUNDRED SCAT-TERED CEILING FOUR THOUSAND BROKEN. VISIBILITY ONE SIX.	4.56
1P160003	TEMPERATURE FIVE NINER. WIND ONE ONE ZERO DEGREES AT TEN GUSTING TO ONE SEVEN	4.56

TIME IN SECONDS

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160004	. ALTIMETER TWO - NINER EIGHT FOUR. SIMULTANEOUS PARAL- LEL APPROACHES IN	4.56	I
1P160005	OPERATION ON RUNWAYS ZERO EIGHT AND NINER RIGHT. ADVISE CON- TROLLER ON INITIAL	4.56	I
1P160006	CONTACT YOU HAVE IN- FORMATION LIMA.)	2.28	I
160003	SET ALTIMETER BARO SETTING TO 29.84		▽
1P160043	CALL OUT-(DESCENT AND APPROACH CHECK- LIST)	2.00	I
140032	ALTIMETER BARO SET PROC.		▽
SW 03	SET ALTIMETER BARO SETTING CONTROL	2.65	I
SW 04	MONITOR ALTIMETER BARO SETTING INDIC	2.65	I
160004	CONTACT ATLANTA AP- PROACH CONTROL		▽
1A 06	SET VHF-1 COMM IFR SW TO RIGHT	2.39	I
160005	DESCENT AND APPROACH CHECKLIST - 1		▽
1P 02	MON VERBAL REPORT	2.00	I
1A 10	ACT PUSH-TO-TALK SW	2.00	I
1A 12	COMM VIA VHF-1	6.00	I
1P160007	RADIO COMM -(ATLANTA APPROACH CONTROL, THIS IS NASA 515 LEVEL AT ONE ONE	4.00	I
BB 02	RETREIVE CHECKLIST	5.90	I
1P160008	THOUSAND WITH INFOR- NATION LIMA, OVER)	2.00	I
BB 05	FIND CHECKLIST IN HANDBOOK	5.00	I
1A 15	MON VHF-1 COMM AUDIO	2.50	I
1P160009	MON RADIO COMM - (NASA 515, ROGER. SQUAWK IDENT.)	2.50	I
1N 07	PRESS ATC IDENT SW	2.14	I
BB 03	READ NEXT ITEM ON CHECKLIST	2.00	I
00EV06	C/P EXT VIS SCAN		▽

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160044	CALL OUT-[ANTI-ICE]	1.00	I
8A 11	CRWMBR EXTERNAL VISION SCAN	30.00	D
1P160045	CALL OUT-[NOT REQD]	0.00	I
8B 03	READ NEXT ITEM ON CHECKLIST	2.00	I
1P160046	CALL OUT -[AIR CONDITIONING AND PRESSURIZATION]	1.00	I
7D 69	MON PASS CAB TEMP CONT SETTING	2.67	I
7D 70	MON CONT CAB TEMP CONT SETTING	2.02	I
7E 08	MON LOG ALT CNTR	1.17	I
1P160047	CALL OUT [SET]	0.40	I
160006	DESCENT AND APPROACH CHECKLIST - 2		▽
8B 03	READ NEXT ITEM ON CHECKLIST	2.00	I
1P160048	CALL OUT-[START SWITCHES]	0.90	I
1P 06	MON VERBAL REPORT	0.50	I
8B 03	READ NEXT ITEM ON CHECKLIST	2.00	I
1P160050	CALL OUT-[INBOARD LANDING LIGHTS]	1.10	I
76 17	SET LANDING LIGHTS SW TO ON	2.20	I
1P160051	CALL OUT -[ON]	0.30	I
8B 03	READ NEXT ITEM ON CHECKLIST	2.00	I
0BEV03	C/P EXT VIS SCAN		▽
8A 10	CRWMBR EXTERNAL VISION SCAN	15.00	D
1P160052	CALL OUT -[ALTIMETER AND INSTRUMENTS]	1.40	I
3H 02	MON CDR BARO ALT INDIC	2.97	I
3H 05	F.O. CHECK CAPT'S ALTIMETER BARO SET AND INDICATED ALTITUDE	3.00	I
1P160053	CALL OUT-[SET AND CROSSCHECKED]	1.30	I
160007	DESCENT AND APPROACH CHECKLIST - 3		▽

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
8B 03	READ NEXT ITEM ON CHECKLIST	2.00
1P160054	CALL OUT-[EPR AND IAS BUGS]	1.50
8B010004	RETREIVE FLIGHT PLANNING REF. DATA MANUAL	3.00
8B160001	DETERMINE GO-AROUND EPR BUG SET VALUE	5.00
7F 26	SET ENG NO 1 EPR BUG	2.32
7F 27	MON ENG NO 1 EPR BUG	2.00
7F 28	SET ENG NO 2 EPR BUG	2.32
7F 29	MON ENG NO 2 EPR BUG	2.00
8B160002	DETERMINE LANDING V-REF BUG SET VALUE	5.00
3A 05	SET V-REF BUG	2.57
1P160055	CALL OUT -[V-REF IS XXX KNOTS]	1.90
0BEV03	C/P EXT VIS SCAN	
8A 10	CRWMBR EXTERNAL VISION SCAN	15.00
3A 12	F.O. CHECK CAPTIS V-REF BUG SETTING	3.00
1P160056	CALL OUT -[BUGS SET AND CROSS-CHECKED]	1.60
8B 03	READ NEXT ITEM ON CHECKLIST	2.00
1P160057	CALL OUT -[CHECKLIST COMPLETED]	1.30
160008	CROSS NORCROSS VOR, RECEIVE INSTRUCTIONS TO TURN TO HDG 210 AND TO SLOW TO 200 KIAS	
1P160010	MON RADIO COMM -[NASA 515, TURN LEFT HEADING TWO ONE ZERO REDUCE SPEED TO TWO	4.00
1B 18	MON VHF-2 COMM AUDIO	6.00
8B 08	STOW CHECKLIST	3.00
8B010005	STOW FLIGHT PLANNING REF DATA MANUAL	2.00
1P160011	ZERO ZERO, OVER]	2.00
0BEV18	C/P EXT VIS SCAN	
8A 14	CRWMBR EXTERNAL VISION SCAN	1000.00
1B 17	COMM VIA VHF-2	5.00

TIME IN SECONDS

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160012	RADIO COMM -(515, ROGER, LEFT HEADING TWO ONE ZERO, SLOW TO TWO ZERO ZERO)	5.00	I
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	I
160009	TURN TO HDG 210 AND SLOW TO 200 KIAS		▽
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 28	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
160010	TURN COMPLETE - ON HDG 210		▽
160011	SET FLAPS TO FLAPS 1		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 07	SET FLAP CONT LEVER TO FLAPS 1	2.69	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	I

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	
1P160050	CALL OUT -(FLAPS 1)	0.70	
160013	SET NAV-1 TO RUNWAY 08 ILS -109.9		
8B 06	RETREIVE CHARTS APPROACH PLATES	6.00	
8B160003	REVIEW CHARTS/PLATES TO DETERMINE NAVAID APP FREQS	5.00	
SU 01	MON NAV-1 FREQ INDIC	5.00	
SU 02	SET NAV-1 FREQ - WHOLE NO.S	5.00	
SU 03	SET NAV-1 FREQ - FRACTIONS	2.00	
1P160059	CALL OUT -(RUNWAY 08 ILS IS ON NAV 1)	2.90	
SH 02	MON VOR POINTER NO.1 ON VOR/RMI 2 INDIC	2.27	
160014	SET NAV-2 TO REG VOR -111.0		
SV 01	MON NAV-2 FREQ INDIC	4.91	
SV 02	SET NAV-2 FREQ - WHOLE NO.S	2.93	
SV 03	SET NAV-2 FREQ - FRACTIONS	1.98	
SH 03	MON VOR POINTER NO.2 ON VOR/RMI 2 INDIC	2.27	
1P160060	CALL OUT -(REG VOR IS ON NAV 2)	2.00	
160015	RECEIVE INSTRUCTIONS TO SLOW TO 190 KIAS		
1P160014	MON RADIO COMM -(NASA 515, REDUCE SPEED TO ONE NINER ZERO KNOTS, OVER)	4.00	
1B 37	MONITOR VHF-2 COMM	4.00	
1B 15	COMM VIA VHF-2	2.50	
1P160015	RADIO COMM - (515, ROGER, ONE IONER ZERO KNOTS)	2.50	
1B 14	ACT PUSH-TO-TALK SW ON HANDGRIP	2.50	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160817	SET FLAPS TO FLAPS 5		▽
160818	FLAP SET PROCEDURE		▽
1P 10	MON VERBAL REPORT	0.70	I
4E 09	SET FLAP CONT LEVER TO FLAPS 5	2.69	I
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	I
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	I
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.58	I
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	I
1P160806	CALL OUT -(FLAPS 5)	0.70	I
050007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
160819	HANDOFF TO APPROACH CONTROL -127.25		▽

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
1P160020	THOUSAND, OVER]	0.75	
1B 19	MON VHF-2 COMM AUDIO	10.00	
1P160021	MON RADIO COMM -[NASA 515, ATLANTA APPROACH, ROGER. SQUAWK IDENT]	3.50	
1N 07	PRESS ATC IDENT SW	2.14	
160020	RECEIVE INSTRUCTIONS TO TURN TO HDG 270, REDUCE SPEED TO 170, AND TO DESCEND TO 4500 FT.		
1P160022	MON RADIO COMM -[NASA 515, TURN RT HEADING TWO SEVEN ZERO, REDUCE SPEED	3.00	
1B 19	MON VHF-2 COMM AUDIO	7.00	
1P160023	TO ONE SEVEN ZERO KNOTS, DESCEND AND MAINTAIN FOUR FIVE HUNDRED, OVER]	4.00	
1B 17	COMM VIA VHF-2	6.00	
1P160024	RADIO COMM -[515, ROGER, LEFT HEADING TWO SEVEN ZERO, SLOW TO ONE SEVEN ZERO,	4.00	
1B 25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	6.00	
160021	BEGIN TURN TO HDG 270		
1P160025	MAINTAIN FOUR FIVE HUNDRED.]	2.00	
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
160023	REACH 170 KIAS		
160024	BEGIN DESCENT TO 4500 FT.		
160018	FLAP SET PROCEDURE		
160025	SET FLAPS TO FLAPS 15		
1P 10	MON VERBAL REPORT	0.70	
4E 11	SET FLAP CONT LEVER TO FLAPS 15	2.46	
4E 15	MONITOR FLAP POSITION INDICATOR	2.23	
4N 03	MON LE FLAPS-IN-TRANSIT LT ON	1.17	
4E 16	CHECK FLAP LEVER AND POSITION INDIC AGREE	2.50	
4N 04	MON LE FLAPS-IN-TRANSIT LT OFF	1.17	
1P160062 030007	CALL OUT -(FLAPS 15) ENGINE INSTRUMENT SCAN	0.70	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	

4900. 5400. 5900. 6400. 6900. 7400. 7900.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
160000	TURN ON LANDING LTS		▽
76 17	SET LANDING LIGHTS SW TO ON	2.20	
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
140023	REPORT 1000 FT TO LEVEL OFF		▽
3H 02	MON CORR BARO ALT INDIC	2.13	I

4980. 5480. 5980. 6480. 6980. 7480. 7980.

CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P140045	CALL OUT -(1000 FEET TO LEVEL OFF)	1.70	
160026	LEVEL OFF AT 4500 FT		
160038	SET DECISION HEIGTH ON RADIO ALTIMETER		
030007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
160039	SET ADF-1 TO LAKESIDE -375KC		
5D 17	SET ADF NO.1 BFO SW TO OFF	3.00	
5D 22	MON ADF NO.1 TUNING METER INDIC	0.77	
5D 01	MONITOR ADF NO 1 FREQ INDIC	1.98	
5D 02	SELECT ADF NO 1 FREQ INDIC	1.98	
1P160065	CALL OUT -(LAKESIDE ON ADF-1)	1.50	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
160048	SET ADF-2 TO LAKE-SIDE -375		▽
SE 17	SEL ADF NO.2 FREQ BAND .19-.48	2.69	I
SE 20	MON ADF NO.2 TUNING METER INDIC	2.26	I
SE 01	MON ADF NO 2 FREQ. INDIC	1.98	I
SE 02	SELECT ADF NO 2 FREQ	1.98	I
1P160066	CALL OUT -(LAKESIDE ON ADF-2)	1.50	I
160027	RECEIVE INSTRUCTIONS TO SLOW TO 160 KIAS.		▽
1B 37	MONITOR VHF-2 COMM	4.00	I
1P160063	MON RADIO COMM -(NASA 515, REDUCE SPEED TO ONE SIX ZERO KNOTS, OVER)	4.00	I
1B 14	ACT PUSH-TO-TALK SW ON HANDGRIP	2.50	I
1B 15	COMM VIA VHF-2	2.50	I
1P160064	RADIO COMM-(515, ROGER, ONE SIX ZERO KNOTS)	2.50	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
030007	ENGINE INSTRUMENT SCAN		
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
160030	RECEIVE INSTRUCTIONS TO TURN TO HDG 180		
1P160026	MON RADIO COMM - (NASA 515, TURN LEFT HEADING ONE EIGHT ZERO, OVER)	3.50	
10 10	MON VHF-2 COMM AUDIO	3.50	
18 26	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	5.00	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1B 32	COMM VIA VHF-2	3.00	
1P160027	RADIO COMM -[SIS ROGER, LEFT HEADING ONE EIGHT ZERO.]	3.00	
160031	TURN TO HDG 180		
050007	ENGINE INSTRUMENT SCAN		
7F 30	MON ENG NO 2 EPR IND	0.44	
7F 25	MON ENG NO 1 EPR IND	0.44	
7F 21	MON NO 1 ENG N1 IND	0.44	
7F 22	MON NO 2 ENG N1 IND	0.44	
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	
7F 23	MON NO 1 ENG N2 IND	0.44	
7F 24	MON NO 2 ENG N2 IND	0.44	
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	
160032	TURN COMPLETE - ON HDG 180		
160033	RECEIVE FINAL APPROACH INSTRUCTION		
1B 37	MONITOR VHF-2 COMM	15.00	
1P160028	MON RADIO COMM -[NASA 515, YOU ARE FOURTEEN MILES FROM THE OUTER MARKER.	3.21	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160829	TURN LEFT HEADING ONE TWO ZERO FOR VECTOR TO INTERCEPT FINAL APPROACH	4.20	
1P160830	COURSE. YOU ARE CLEARED FOR AN ILS RUNWAY ZERO EIGHT APPROACH. CONTACT	4.20	
1P160831	TOWER AT THE OUTER MARKER ON ONE ONE NINER POINT FIVE. OVER)	3.21	
1B 17	COMM VIA VHF-2	7.00	
1P160832	RADIO COMM- (SIS, ROGER, (LEFT HEAD)NG ONE TWO ZERO, ILS RUNWAY ZERO EIGHT	4.00	
1B 26	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	7.00	
1P160833	APPROACH, TOWER AT OUTER MARKER ON ONE ONE NINER POINT FIVE	3.00	
160835	BEGIN TURN TO HDG 120		
160834	TUNE ATLANTA TOWER -119.5		
1B 07	MON VHF-2A FREQ IND	4.06	
1B 08	SET VHF-2A FREQ - WHOLE NO.S	2.00	
1B 09	SET VHF-2A FREQ - FRACTIONS	1.90	
160843	TUNE NAV-1 TO RWY 08 ILS -109.9		
SU 01	MON NAV-1 FREQ INDIC	5.00	
SU 02	SET NAV-1 FREQ - WHOLE NO.S	3.00	
SU 03	SET NAV-1 FREQ - FRACTIONS	2.00	
1P160869	CALL OUT -(ILS ON NAV 1)	1.50	
160836	TURN COMPLETE - ON HDG 120		
160837	CAPTURE ILS LOC BEGIN TURN TO HDG 090		

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
3R 59	MON INITIAL MOVEMENT OF ROLL COMMAND BAR ON FDI	2.50	I
1P160067	CALL OUT -(LOCALIZER ALIVE)	1.30	I
1P 82	MON VERBAL REPORT	2.00	I
160044	TURN COMPLETE - ON HDG.090 -RWY 08 HDG		▽
160045	ANNUNCIATOR RECALL		▽
7A 28	ACTUATE ANNUN PNL RECALL SW	2.20	I
7A 36	MON ALL ANNUN LTS	0.53	I
160047	MON INSTRUMENTS ON FINAL APP		▽
3L 82	MON VERTICAL SPEED INDIC	5.00	I
3R 62	MONITOR LOCALIZER INDICATOR ON FDI	5.00	I
3S 84	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00	I
3R 63	MON GLIDE SLOPE ATT INDIC ON FDI	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3W 87	MON ALTIMETER	5.00	I
160048	MON ADF/RMI-2		▽
5E 26	MON ADF NO.1 POINTER ON ADF/RMI 2 INDIC	2.26	I
160049	MON RADIO ALTIMETER		▽
5J 01	MON RADIO ALT ALTITUDE INDIC	2.00	I
160047	MON INSTRUMENTS ON FINAL APP		▽
3R 63	MON GLIDE SLOPE ATT INDIC ON FDI	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3W 87	MON ALTIMETER	5.00	I
3L 82	MON VERTICAL SPEED INDIC	5.00	I
3R 62	MONITOR LOCALIZER INDICATOR ON FDI	5.00	I
3S 84	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00	I
160048	MON ADF/RMI-2		▽

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
5E 26	MON ADF NO.1 POINTER ON ADF/RMI 2 INDIC	2.26	I
160047	MON INSTRUMENTS ON FINAL APP		▽
3H 07	MON ALTIMETER	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3R 62	MONITOR LOCALIZER INDICATOR ON FDI	5.00	I
35 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00	I
3R 63	MON GLIDE SLOPE ATT INDIC ON FDI	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
160048	MON ADF/RMI-2		▽
5E 26	MON ADF NO.1 POINTER ON ADF/RMI 2 INDIC	2.26	I
160050	RECEIVE INSTRUCTIONS TO SLOW TO 150		▽
1B 18	MON VHF-2 COMM AUDIO	3.50	I
1P160034	MON RADIO COMM-[NASA 515, REDUCE SPEED TO ONE FIVE ZERO KNOTS OVER]	3.50	I
1B 15	COMM VIA VHF-2	2.50	I
1P160035	RADIO COMM -[515, ROGER, ONE FIVE ZERO KNOTS]	2.50	I
1B 14	ACT PUSH-TO-TALK SW ON WANDGRIP	2.50	I
160055	RECEIVE INSTRUCTIONS TO MAINTAIN CURRENT SPEED		▽
160053	SET FLAPS TO FLAPS 25		▽
1P160036	MON RADIO COMM -[NASA 515, MAINTAIN CURRENT SPEED UNTIL CROSSING 5TLBDS,OVER	3.50	I
1B 18	MON VHF-2 COMM AUDIO	3.50	I
4E 12	SET FLAP CONT LEVER TO FLAPS 25	2.90	I
160054	ACQUIRE GLIDESLOPE		▽

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME In SECONDS
3R 60	MON INITIAL MOVEMENT OF GLIDE SLOPE COMMAND BAR ON FDI	2.50	I
1P160071	CALL OUT -[GLIDE SLOPE ALIVE]	1.00	I
1B 20	MON VHF-2 COMM AUDIO	1.70	I
1P160037	RADIO COMM - [SIX, ROGER]	1.70	I
1B 14	ACT PUSH-TO-TALK SW ON HANDGRIP	1.70	I
1P160070	CALL OUT -[FLAPS 25]	0.70	I
160047	MON INSTRUMENTS ON FINAL APP		▽
3H 07	MON ALTIMETER	5.00	I
3L 02	MON VERTICAL SPEED INDIC	5.00	I
3R 62	MONITOR LOCALIZER INDICATOR ON FDI	5.00	I
3S 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00	I
3R 63	MON GLIDE SLOPE ATT INDIC ON FDI	5.00	I
3A 10	MONITOR AIRSPEED INDIC	5.00	I
160048	MON ADF/BMI-2		▽
5E 26	MON ADF NO.1 POINTER ON ADF/BMI 2 INDIC	2.26	I
160056	BEGIN DECELERATION TO 135 KNOTS		▽
1P160072	CALL OUT -[CROSSING STUBBS]	1.00	I
160057	SET FLAPS TO FLAPS 40		▽
4E 14	SET FLAP CONT LEVER TO FLAPS 40	2.92	I
160078	SET AUTO BRAKES		▽
4D 43	SET AUTO BRAKE SEL SW TO MED	2.67	I
4D 40	MON AUTO BRAKE INOP LT OFF	0.26	I
1P160073	CALL OUT -[FLAPS 40]	0.70	I
160047	MON INSTRUMENTS ON FINAL APP		▽
3A 10	MONITOR AIRSPEED INDIC	5.00	I
3H 07	MON ALTIMETER	5.00	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
5L 02	MON VERTICAL SPEED INDIC	5.00	I
3R 62	MONITOR LOCALIZER INDICATOR ON FDI	5.00	I
35 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00	I
3R 63	MON GLIDE SLOPE ATT INDIC ON FDI	5.00	I
030007	ENGINE INSTRUMENT SCAN		▽
7F 25	MON ENG NO 1 EPR IND	0.44	I
7F 30	MON ENG NO 2 EPR IND	0.44	I
7F 22	MON NO 2 ENG N1 IND	0.44	I
7F 21	MON NO 1 ENG N1 IND	0.44	I
7F 32	MON ENG NO 2 EXH GAS TEMP IND	0.44	I
7F 31	MON ENG NO 1 EXH GAS TEMP IND	0.44	I
7F 24	MON NO 2 ENG N2 IND	0.44	I
7F 23	MON NO 1 ENG N2 IND	0.44	I
7F 34	MON ENG NO 2 FUEL FLOW INDIC	0.44	I
7F 33	MON ENG NO 1 FUEL FLOW INDIC	0.44	I
7F 09	MON NO 1 ENG OIL PRESS INDIC	0.44	I
7F 18	MON NO 2 ENG OIL TEMP INDIC	0.44	I
7F 10	MON NO 1 ENG OIL TEMP INDIC	0.44	I
7F 19	MON NO 2 ENG OIL QTY INDIC	0.44	I
7F 11	MON NO 1 ENG OIL QTY INDIC	0.44	I
7F 20	MON NO 2 ENG VIBR AMPLITUDE INDIC	0.44	I
7F 12	MON NO 1 ENG VIBRATION AMPLITUDE INDIC	0.44	I
160047	MON INSTRUMENTS ON FINAL APP		▽
5L 02	MON VERTICAL SPEED INDIC	5.00	I
3R 62	MONITOR LOCALIZER INDICATOR ON FDI	5.00	I

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)
3S 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00
3R 63	MON GLIDE SLOPE ATT INDIC ON FDI	5.00
3A 10	MONITOR AIRSPEED INDIC	5.00
3H 07	MON ALTIMETER	5.00
160049	MON RADIO ALTIMETER	
3J 01	MON RADIO ALT ALTITUDE INDIC	2.00
160059	CROSS RWY XX OUTER MARKER	
00EV14	C/P EXT VIS SCAN	
8A 13	CRWMDR EXTERNAL VISION SCAN	200.00
1P 13	MON VERBAL REPORT	1.00
160060	EXTEND LANDING GEAR	
4D 03	SET LANDING GEAR LEVER TO DOWN POSITION	3.27
4D 05	MONITOR NOSE GEAR DOWN AND LOCKED LT ON	0.54
4D 09	MONITOR LEFT/RT GEAR DOWN AND LOCKED LT ON	0.54
160047	MON INSTRUMENTS ON FINAL APP	
3H 07	MON ALTIMETER	5.00
3L 02	MON VERTICAL SPEED INDIC	5.00
3R 62	MONITOR LOCALIZER INDICATOR ON FDI	5.00
3S 04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	5.00
3R 63	MON GLIDE SLOPE ATT INDIC ON FDI	5.00
3A 10	MONITOR AIRSPEED INDIC	5.00
160049	MON RADIO ALTIMETER	
3J 01	MON RADIO ALT ALTITUDE INDIC	2.00
160064	CROSS RWY 08 MIDDLE MARKER	

TIME IN SECONDS

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1601865	DESCEND THRU -DECISION HEISTH		
160858	REPORT RUNWAY IN SIGHT		
9V 13	MONITOR MIDDLE MARKER ANNUN LT ON AND AUDIBLE SIGNAL	1.91	
9R 12	MON DECISION HGT LT ON FDI	2.58	
8A 01	VIEW RUNWAY AHEAD	2.00	
1P160874	CALL OUT -[RUNWAY IN SITE]	1.00	
1P160886	CALL OUT -[DECISION HEIGHT]	0.00	
160867	CROSS END OF RWY 08		
160871	HANDOFF TO GROUND CONTROL -121.9		
1B 18	MON VHF-2 COMM AUDIO	6.00	
1P160887	MON RADIO COMM -[NASA 515,EXIT RUNWAY NEXT INTERSECTION, CONTACT GROUND	3.50	
1P160888	POINT NINER WHEN CLEAR OF RUNWAY, OVER]	2.50	
1P160889	RADIO COMM -[515, ROGER, POINT NINER WHEN CLEAR]	2.50	
1B 14	ACT PUSH-TO-TALK SW ON HANDGRIP	2.50	
1B 15	COMM VIA VHF-2	2.50	
1B 02	SET VHF-2L FREQ-WHOLE NO.S	2.90	
1B 01	MON VHF-2L FREQ IND	5.00	
1B 03	SET VHF-2L FREQ -FRACTIONS	1.90	
1B 05	SET VHF-2 COMM TFR SW TO LEFT	1.45	
1P160890	RADIO COMM -[ATLANTA GROUND, THIS IS NASA 515, TAXI TO GATE X, OVER]	3.50	
1B 29	ACTUATE COMM 2 PUSH-TO-TALK SW	3.50	
1B 16	COMM VIA VHF-2	3.50	

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CODE	EVENT/PROCEDURE OR TASK DESCRIPTION	TASK DUR (SEC)	TIME IN SECONDS
1P160091	MON RADIO COMM - [NASA 515, ATLANTA GROUND, TAXI TO RAMP VIA NORTHEAST-SOUTH-WEST TAXIWAY, OVER]	3.50	I
1B 18	MON VHF-2 COMM AUDIO	3.50	I
1P160092		1.80	I
1P160037	RADIO COMM - [515, ROGER]	1.70	I
1B 29	ACTUATE COMM 2 PUSH-TO-TALK SW	1.70	I
1B 15	COMM VIA VHF-2	1.70	I

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3.0 FORWARD FLIGHT DECK AUTOPILOT SCENARIO DATA FILE

The data file consists of four parts: a Phase Library, an Event/Procedure Library, a Task Library, and a Subsystem Library. The modular construction allows for ease of file maintenance and modification. It also avoids the need to duplicate data as single tasks may be used in several procedures and individual procedures may be used in many phases.

********** LAST EDIT 4 SEP 1978 **********
********** LAST BKUP 4 SEP 1978 **********

PHASES

0100 PRE/START PREP - FFD	010001		0	010030	30	010003	141	010031	205
	010002	215	010004	220	010005	320	010007	430		
	010032	440	010008	443	010033	445	010009	457		
	010010	509	010011	523	010012	538	010034	545		
	010013	553	010035	625	010036	637	010014	641		
	010015	652	010016	710	010017	721	010018	740		
	010019	753	010020	800	010037	810	010038	822		
	010039	830	010021	840	010022	845	010040	850		
	010041	900	010042	905	010050	935	010051	1006		
	010052	1042	010053	1119	010054	1151	010056	1205		
	010055	1225	010057	1300	010058	1320	010059	1440		
	010060	1445	010061	1515	010062	1516				
0200 PRE-START PREP - AFD	010001		0		020008	140	010031	205		
	010002	215	010004	217			020009	315		
	020001	315	010005	320	010007	422	010008	435		
	010035	407	020010	417	020011	500	010009	455		
	010010	507	020012	510	020013	515	020014	527		
	010011	520	020015	534	010012	542	020016	550		
	010013	557	020017	605	020018	618	020019	630		
	020020	630	020021	641	020022	641	020002	645		
	020003	650	020004	659	020024	659	020023	659		
	020005	714	010016	721	010017	730	010018	749		
	020006	802	010019	819	010020	826	020025	830		
	020026	830								
	020027	843	020028	843	020029	900	020030	903		
	010021	904	010022	907	020031	909	020032	909		
	020033	924	020007	924	020035	927	020034	927		
	010042	935	020041	938	020036	941	020037	941		
	020038	954	020034	957	020047	957	020039	1008		
	020040	1008	020042	1020	020043	1028	020043	1034		
	020043	1040	020043	1046	020043	1052	020043	1058		
	020043	1104	020043	1110	020043	1116	020044	1122		
	010050	1130	010051	1201	010052	1233	010053	1312		
	010054	1344	020045	1358	020046	1414	010055	1434		
	010057	1506	010058	1526	010059	1646	010060	1650		
	010062	1721	010061	1721						
0300 ENGINE START	030001		0	030002	50	030007	135	030003	140	
	00EV31	220	030004	230	030005	254	030006	306		
	00EV21	315								
A400 TAXI BEFORE TAKEOFF FFD	040001	0	0 0	040002	18	030007	100	030007	200	
	040003	248	030007	300	030007	400	040004	454		
	030007	500	030007	600	040005	624	030007	700		
	040006	721								
	040007	821	040008	1008						
B400 TAXI BEFORE TAKEOFF AFD	040001	U	0 0	040002	18	030007	100	030007	200	
	040003	248	030007	300	030007	400	00EV33	400		
	040004	454	00EV30	540						
	030007	500	030007	600	040005	624	030007	700		
	040006	732	00EV26	745	040007	821	040008	1008		
A700 TAKEOFF - FFD	00EV13	00	070001	00	070002	24	070003	49		
	070008	110	070004	120	00EV12	140	070005	240		
	070006	245	030007	313	070007	317				
B700 TAKEOFF - AFD	00EV12	00	070001	00	070002	24	070012	49		
	00EV32	00	00EV24	100	00EV02	100	00EV13	120		
	070009	110	070012	120	070013	130	070013	145		

	00EV29	285	070015	245	070010	250	030007	310
	070011	322							
A900 NOISE ABATEMENT	090001	0	090002	0	090003	0	00EV18	00
	090004	10	090054	10				
CLIMB - NORMAL AWY-FFD	030007	15	090054	20	090003	20	090005	20
	090002	30	090006	30	090003	32	090002	40
	090003	42	030007	45	090002	50	090003	52
	090008	100	090009	102	090007	103	090002	108
	090003	108	030007	110	090008	118	090009	118
	090010	123	090008	125	090009	125	090003	130
	090009	140	030007	140	090012	142	090011	145
	090016	145	090017	145	090013	152	090021	155
	090014	205	090018	215	090019	215	030007	230
	030007	300	090002	315	090003	315	090015	315
	090002	325	090003	325	090020	335	090003	335
	090008	355	030007	355	090018	405	090019	405
	090023	410	090024	500	090018	505	090019	505
	030007	510	090018	605	090019	605	030007	605
	090025	650	090016	705	090017	705	090026	707
	140023	707	030007	710	090002	735	090003	735
	090008	745	090009	745	090027	750	090018	750
	090019	750	030007	755	090018	850	090019	850
	030007	850	030007	945	090018	950	090019	950
	090016	1050	090017	1050	030007	1100	090016	1120
	090017	1120	090028	1140	090018	1150	090019	1150
	090018	1250	090019	1250	090029	1310	090016	1350
	090017	1350	030007	1410	090030	1430	090018	1430
	090019	1430	030007	1455	030007	1515	090018	1530
	090019	1530	030007	1555	090016	1630	090017	1630
	00EV09	1640						
	090031	1645	090032	1700	140023	1705	030007	1710
	090016	1705	090017	1705	090033	1715	090008	1735
	00EV15	1740	090009	1735	090034	1740	090035	1800
	090036	1805	090037	1805	030007	1825	030007	1925
	090037	1935	030007	2025	090039	2105	030007	2125
	030007	2225	00EV05	2245	090038	2305	090039	2305
	00EV05	2245						
	090040	2305	030007	2330	00EV12	2330	090018	2505
	030007	2425						
	00EV03	2425	00EV15	2435				
	090019	2505	030007	2525	030007	2625	090041	2605
	090016	2610	090017	2610	090002	2640	090003	2640
	090042	2650	090002	2650	090003	2650	090002	2700
	090003	2700	090043	2700	090044	2710	090038	2720
	090039	2720	030007	2825	090045	2845	090002	2920
	00EV01	2935						
	090003	2920	030007	2925	090002	2930	090003	2930
	00EV03	2930	090008	2940	090009	2940		
B900 NOISE ABATEMENT	090001	0	090050	0	00EV13	00	030007	18
	00EV38	18						
CLIMB - AREA NAV - AFD	090052	18	090053	18	090054	18	090054	25
	090055	25	090006	33	090007	111	090011	131
	090056	131	090057	131	090067	136	030007	140
	00EV03	150						
	090012	140	090076	148	090013	200	090051	200
	090014	205	030007	240	090051	300	00EV13	218
	030007	340	00EV07	358				
	090058	353	090059	353	090051	400	090024	433
	090024	443	030007	450	090051	500	030007	550
	00EV18	448						

A9FE NOISE ABATEMENT
CLIMB - NORMAL AWY-
HYD SYS B PUMP OVHT

090051	600	030007	650	090051	700	090003	708
030007	750	090051	800	090064	823	090065	823
090066	833	090067	833	030007	850	090051	900
090069	915	090068	919	090070	925	090071	930
090072	945	090051	1000	140023	1025	090073	1030
030007	1050	090051	1100	090074	1125	090075	1125
030007	1150	090051	1200	030007	1250	090051	1300
090078	1328	030007	1350	090051	1400	090071	1421
030007	1450	090051	1500	090079	1524	090072	1538
030007	1550	090051	1600	140023	1627	090073	1631
00EV37	1640						
030007	1650	090051	1700	090080	1727	090075	1727
090081	1742	030007	1750	090051	1800	030007	1850
090051	1900	030007	1950	090051	2000	030007	2050
090051	2100	090082	2132	090078	2140	090083	2146
00EV14	2128						
090051	2200	030007	2200	090051	2300	030007	2300
090048	2320						
030007	2400	090051	2400	00EV12	2410	140023	2415
00EV01	2455	090048	2448	00EV24	2500		
090001	0	090002	0	090003	0	090004	10
030007	15	090002	20	090003	20	090005	20
090002	30	090006	30	090003	32	090002	40
090003	42	030007	45	090002	50	090003	52
090008	100	090009	102	090007	103	090002	108
090003	108	030007	110	090008	118	090009	116
090010	123	090008	125	090009	125	090003	130
090009	140	030007	140	090012	142	090011	145
090016	145	090017	145	090013	152	090021	155
090014	205	090018	215	090019	215	030007	230
030007	300	090002	315	090003	315	090015	315
090002	325	090003	325	090020	335	090003	335
030007	355	090022	405	090018	405	090019	405
090023	410	090024	500	090018	505	090019	505
030007	510	090018	605	090019	605	030007	605
090025	650	090016	705	090017	705	090026	707
140023	707	030007	710	090002	735	090003	735
090008	745	090009	745	090027	750	090018	750
090019	750	030007	755	090018	850	090019	850
030007	850	030007	945	090018	950	090019	950
090016	1050	090017	1050	030007	1100	090016	1120
090017	1120	090028	1140	090018	1150	090019	1150
09FE01	1210						
090018	1250	090019	1250	090029	1310	090016	1350
090017	1350	030007	1410	090030	1430	090018	1430
090019	1430	030007	1455	030007	1515	090018	1530
090019	1530	030007	1555	090016	1630	090017	1630
090031	1645	090032	1700	140023	1700	030007	1705
090016	1705	090017	1705	090033	1715	090008	1735
090009	1735	090034	1740	090035	1800	090036	1805
090037	1805	030007	1825	030007	1925	030007	2025
030007	2125	030007	2225	090038	2305	090039	2305
090040	2305	030007	2325	030007	2425	090018	2505
090019	2505	030007	2525	030007	2625	090041	2605
090016	2610	090017	2610	090002	2640	090003	2640
090042	2650	090002	2650	090003	2650	090002	2700
090003	2700	090043	2700	090044	2710	090038	2720
090039	2720	030007	2825	090045	2845	090002	2920
090003	2920	030007	2925	090002	2930	090003	2930
090008	2940	090009	2940				

B9EA	ENGINE FIRE - NOISE	B9EA01	000000	B9EA02	0000	B9EA03	44	130007	122		
	ABTMT CLIMB	B9EA04	122	B9EA05	148						
B9FE	NOISE ABATEMENT	090060	0	090050	0	090051	0	030007	18		
	CLIMB - AREA NAV -	090052	18	090053	18	090054	18	090054	25		
	HYD SYS B PUMP OVHT	090055	25	090006	33	090007	111	090011	131		
		090056	131	090057	131	090067	136	030007	140		
		090012	140	090076	148	090013	200	090051	200		
		090014	205	030007	240	090051	300	030007	340		
		090058	353	090059	353	090051	400	090061	433		
		090062	443	030007	450	090051	500	030007	550		
		090051	600	030007	650	090051	700	090003	708		
		030007	750	090051	800	090064	823	090065	823		
		090066	833	090067	833	030007	850	090051	900		
		090069	915	090068	923	090070	925	090071	930		
		090072	945	09FE01	952						
				090051	1000	140023	1025	090073	1030		
		030007	1050	090051	1100	090074	1125	090075	1125		
		030007	1150	090051	1200	030007	1250	090051	1300		
		090078	1328	030007	1350	090051	1400	090071	1421		
		030007	1450	090051	1500	090079	1524	090072	1538		
		030007	1550	090051	1600	140023	1627	090073	1631		
		030007	1650	090051	1700	090080	1727	090075	1727		
		090081	1742	030007	1750	090051	1800	030007	1850		
		090051	1900	030007	1950	090051	2000	030007	2050		
		090051	2100	090082	2132	090078	2140	090083	2146		
		090051	2200	030007	2200	090051	2300	030007	2300		
		030007	2400	090051	2400	140023	2415				
1100	CRUISE - NORMAL AWY	110001	0 0 0	090036	0	090039	0	110002	0		
		00EV17	00	030007	40	110003	140	030007	140		
		030007	240	090037	200	090037	338				
		090038	500	090039	500	110004	625	090038	700		
		090039	700	00EV12	820	110005	845	110006	900		
		110007	905								
		090038	910	090039	910	030007	340	030007	440		
		030007	540	030007	640	030007	740	030007	840		
		110008	930	030007	950	00EV14	1015	030007	1040		
		090038	1110								
		090039	1110	030007	1140	110009	1150	030007	1240		
		090002	1310	090003	1310	110010	1320	090002	1320		
		090003	1320	090008	1330	090009	1330				
11XX	CRUISE - NORMAL AWY-	110001	0 0 0	090036	0	0 0	090037	0	0 0	110002	0 0 0
	MULTIPLE FAULTS	11FD01	25	030007	40	110003	40	030007	140		
		11AF01	153	030007	240	030007	340	11CB01	408		
		090038	500	090039	500	030007	540	030007	640		
		090038	700	090039	700	030007	740	030007	840		
		110005	845	110006	900	110007	905				
		090038	910	090039	910						
		110008	930	030007	950	030007	1040	090038	1110		
		090039	1110	030007	1140	110009	1150	030007	1240		
		090002	1310	090003	1310	110010	1320	090002	1320		
		090003	1320	090002	1330	090003	1330				
1300	CRUISE - AREA NAV	110001	0	130001	0	130002	0	00EV17	00		
		030007	30	00EV38	00						
		110003	40	090051	100	030007	130	090051	200		
		030007	230	090051	300	030007	330	090051	400		
		030007	430	090051	500	030007	530	090051	600		
		030007	630	090051	700	030007	730	090051	800		
		00EV4	820								
		130003	825	030007	830	090051	900	030007	930		
		090051	1000	130004	1025	030007	1100	090051	1100		

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	090051	1400	030007	1500	090051	1500	130008	1520
	130009	1520	130010	1540	130011	1540	130012	1548
	130013	1548	090051	1600	130014	1608	130015	1608
	130016	1623	130017	1640	020035	1645	130018	1645
	00EV35	1640						
	090051	1700	020030	1658	020034	1703	130027	1703
	130019	1715	130020	1715	130019	1738	130028	1738
	090051	1800	020036	1800	130015	1800	020034	1815
	130029	1817	130021	1830	130022	1841	130030	1850
	130013	1850	090051	1900	130024	1906	020043	1917
	020043	1923	020043	1929	020044	1935	130026	1945
	030007	1945	00EV13	1950				
	090051	2000	030007	2010	090051	2100	030007	2110
	00EV09	2130	00EV24	2140	090051	2150		
13XX CRUISE - AREA NAV MULTIPLE FAULTS			110001	0	130001	0	130002	0
	030007	30	110003	40	090051	100	030007	130
	090051	200	030007	230	11FD01	245	090051	300
	030007	330	090051	400	11AF01	413	030007	430
	090051	500	030007	530	090051	600	11CB01	628
			090051	700	030007	730	090051	800
	130003	825	030007	830	090051	900	030007	930
	090051	1000	130004	1025	030007	1100	090051	1100
	030007	1200	090051	1200	130005	1210	130006	1220
	130007	1220	030007	1300	090051	1300	030007	1400
	090051	1400	030007	1500	090051	1500	130008	1520
	130009	1520	130010	1540	130011	1540	130012	1548
	130013	1548	090051	1600	130014	1608	130015	1608
	130016	1623	130017	1640	020025	1645	130018	1645
	090051	1700	020030	1658	020034	1703	130027	1703
	130019	1715	130020	1715	130019	1738	130028	1738
	090051	1800	020036	1800	130015	1800	020034	1815
	130029	1815	130021	1830	130022	1841	020039	1850
	130013	1850	090051	1900	130024	1906	020043	1917
	020043	1923	020043	1929	020044	1935	130026	1945
	090051	2000	030007	2010	090051	2100	030007	2110
	090051	1950	030007	1945				
1400 DESCENT - FFD					00EV15	00	140001	0
	140002	0	140003	0	090038	10	090039	10
	030007	26	030007	135	090008	210	090009	210
	140003	215	140004	215	090018	225	090019	225
	030007	235	140005	305	140006	325	140007	325
	030007	335	090002	335	090003	335	030007	435
	00EV12	500						
	090038	345	090039	345	140008	447	030007	535
	140007	545	140009	545	090036	555	090037	555
	00EV04	600						
	140010	605	140011	615	030007	635	00EV17	635
	030007	725	090037	725	140012	745		
	030007	835	090039	855	030007	935	030007	1035
	090002	1055	090003	1055	140013	1055	140003	1105
	140014	1105	090036	1115	090037	1115	030007	1135
	030007	1235	090037	1245	030007	1335		
	090039	1415	030007	1435	030007	1535		
	090018	1615	090019	1615	030007	1635	090016	1715
	090017	1715	030007	1735	090008	1745	090009	1745
	090036	1750	090037	1750	140015	1750	140016	1750
	140017	1811	140018	1831	140032	1838	030007	1840

	090037	1920	030007	1935	030007	2035	090039	2050
	030007	2135	030007	2235	00EV03	2235		
	00EV03	2235						
	140019	2240	140020	2245	090018	2250	090019	2250
	00EV18	2305						
	140022	2255	140023	2256	140021	2310	030007	2335
	140003	2350	140024	2350			110012	2400
	140025	2405	030007	2435	140026	2510		
	030007	2535						
	030007	2635	030007	2735	030007	2835	140027	2845
	030007	2935	030007	3035	030007	3135	030007	3235
	00EV16	3240						
	030007	3335	140028	3405	140003	3420	140029	3420
	090038	3430	090039	3430	030007	3435	030007	3535
	090038	3630	090039	3630	030007	3635	030007	3735
	140023	3805	160000	3815	090016	3830	090017	3830
	090002	3900	090003	3900	140003	3910	140030	3910
	090002	3920	090003	3920	140031	3930	030007	3935
	090002	3930	090003	3930				
1500 DESCENT - AFD	150001	00	00EV19	00	150002	15	090051	25
	00EV23	00	00EV29	30	150004	35		
	150005	57	030007	100	150006	115	090051	120
	00EV38	130						
	030007	200	090051	220	150007	240	150008	240
	150020	240	090051	320	030007	350	030007	400
	090051	420	030007	500	090051	520	030007	600
	090051	620	030007	700			150009	720
	150010	740	030007	800	090051	800	030007	900
	090051	900	030007	1000	090051	1000	030007	1100
	090051	1100	030007	1200	090051	1200	150011	1240
	030007	1300	090051	1300	150012	1300	140032	1310
	150013	1310	090051	1400	030007	1402	030007	1500
			150014	1500	150015	1535	030007	1600
	090051	1602	030007	1700	090051	1700	030007	1800
	090051	1800	030007	1900	090051	1900	150016	1950
	00EV37	1810						
	090051	2000	030007	2100	090051	2100	030007	2200
	090051	2202	030007	2300	090051	2300	030007	2400
	090051	2400	150017	2420	150018	2440	00EV13	2500
	030007	2500	090051	2500	150019	2520	150020	2520
	030007	2600	090051	2600	090051	2620	150021	2620
	00EV33	2630	00EV12	2640				
	030007	2700	090051	2700	150022	2700	150023	2730
	00EV07	2810						
	150024	2745	150025	2815	150027	2840	150026	2845
	00EV27	2810						
1600 APP AND LAND - FFD	160001	00	160091	00	090019	00	00EV02	00
	160002	10	00EV08	20				
ILS PROCEDURAL	160003	42	140032	46	160004	54	160005	55
	160091	60	090019	60	00EV06	110	160006	124
	00EV03	140	160007	149	160039	200	090003	200
	160089	210			00EV03	210	160089	220
	090009	225	160008	220	00EV18	225	030007	230
	140007	230						
	160009	230	160088	245	090009	245	160010	245
	160011	245	160088	250	090009	250	160012	250
	160093	255	090039	255	160013	255	160014	315
	160015	355	160016	401	160017	405	160018	405
	030007	425	160091	455	090019	455	160019	510
	030007	525	160020	540	160021	550	140007	555

16EK APP AND LAND
PILOT INCAPACITATED

090003	555	160090	605	030007	625	160022	635
140003	655	160018	655	160023	655	160024	655
160025	655	160091	705	090039	705	160041	705
030007	725	160000	800	160041	805	030007	825
160089	905	090003	905	160041	905	030007	925
090017	915	160091	915				
140023	942	160041	1005	140003	1015	160026	1015
160038	1020	030007	1025	160093	1025	090039	1025
		160039	1030	160040	1040	160027	1055
160042	1100	160028	1103	160041	1105	160029	1113
030007	1125	160042	1200	160041	1205	030007	1225
160090	1225	090017	1225	160089	1255	160089	1255
160042	1300	160089	1305	090003	1305	160030	1305
160041	1305	140007	1315	160031	1315	030007	1325
160091	1325	090019	1325	160042	1400	160032	1405
160033	1405	160041	1405	160088	1425	090009	1425
140007	1430	160034	1430	160035	1430	160043	1435
160091	1440						
090019	1440	160042	1500	160041	1505	160036	1510
160089	1540	090003	1540	160088	1550	090009	1550
160037	1555	160042	1600			160041	1605
160044	1615	160045	1615	160046	1615	160047	1620
160072	1625	160048	1630	160049	1635	160047	1640
160048	1650	160047	1700	160048	1710	160050	1715
160051	1720	160052	1730	160055	1730	160053	1730
160054	1732			160047	1740	160048	1750
160056	1755			160057	1800	160069	1800
160070	1805	160047	1810	030007	1820		
160047	1840	160049	1850	160059	1905	00EV14	1905
160060	1910			160047	1955		
160049	2000	160073	2025	160064	2030		
160065	2030	160066	2030	160058	2030	160067	2046
160068	2056	160071	2130				
160001	0	160002	10	140032	42	160003	42
160004	50	030007	55	160005	55	160006	124
090016	140	090017	140	160007	149	090002	210
090002	220	090003	220	160008	220		
030007	230	160009	230	140007	230		
090009	240	160010	245	160011	245	090002	250
090003	250	160012	250	090038	255	090039	255
160013	255	160014	315	160015	355	160016	401
160017	405	160018	405	030007	425	090018	455
090019	455	160019	510	030007	525	160020	540
140007	555	160021	555	16EK03	615		
16EK00	625						
16EK01	625	16EK02	625	16EK02	635		
16EK15	635			16EK02	645	16EK04	655
16EK05	655	16EK06	655	16EK07	705	16EK08	705
16EK09	715	16EK15	735	030007	740	16EK15	835
030007	840	16EK10	915	16EK15	935	030007	940
16EK06	1015	16EK11	1015	16EK12	1025	160038	1025
16EK60	1030	16EK15	1035	030007	1040	16EK61	1040
16EK09	1055	16EK16	1055	16EK67	1055	16EK13	1100
16EK14	1110	16EK15	1135	030007	1140	16EK16	1155
030007	1240	16EK02	1255	16EK16	1255	16EK02	1305
16EK68	1305	16EK17	1315	16EK18	1315	16EK10	1325
16EK15	1335	030007	1340	16EK16	1355	16EK19	1405
16EK64	1405	16EK20	1425	16EK18	1430	16EK21	1430
160034	1430	16EK15	1435	030007	1440	16EK10	1440
16EK16	1455	16EK22	1505	16EK15	1535	030007	1540

	16EK02	1540	16EK20	1550	16EK23	1555	16EK24	1615
	16EK25	1615	160045	1615	16EK26	1625	16EK16	1655
	16EK69	1715	16EK27	1720	16EK08	1730	16EK28	1730
	16EK29	1730	16EK30	1730	16EK62	1730	16EK15	1735
	030007	1740	16EK08	1755	16EK31	1755	16EK32	1755
	16EK34	1755			030007	1840		
	16EK33	1905	160060	1910	16EK66	1915	16EK35	1930
	16EK15	1935	030007	1940	16EK36	2030	16EK37	2030
	16EK38	2030	16EK39	2046	16EK40	2056	16EK63	2130
16FB APPROACH TO LAND-	16FB01	00	090016	00	090017	00	16FB02	06
ILS PROCEDURE WITH	16FB03	06	16FB04	31			16FB05	33
GEAR MALFUNCTION	16FB06	33	090016	38	090017	38	16FB07	50
	090002	50	090003	50	16FB08	50	030007	50
	16FB09	0117	140003	0117	16FB10	0117	030007	0120
	16FB11	0120	16FB13	0129	16FB12	0138	140007	0138
	030007	0140	090016	0150	090017	0150	16FB14	0150
	16FB15	0150						
1700 APP AND LAND	160001	0	160092	00	090037	00	160002	10
	140032	42	160003	42	170001	50	030007	55
MLS PROCEDURAL	170002	55	160011	105	170003	105	160005	115
	170004	115	160028	130	090009	130	160090	140
	090017	140	160006	144			170005	200
	160007	209	140007	210	160090	220	090003	220
	170006	220	170007	245	160019	335	160089	250
	090003	250	160089	300	090003	300	160091	310
	090019	310	030007	355	170008	400	140007	410
	170009	415	160091	425	090019	425	030007	455
	170010	515	160089	525	090003	525	160017	525
	160018	525	170011	525	140003	535	170012	535
	160093	545	090039	545	030007	555	160000	635
	030007	655	160091	745	090019	745	030007	755
	140023	815	160089	845	090003	845	030007	855
	140003	855	170013	855	160091	905	090019	905
	160038	915	170014	915	160047	920	030007	955
	160047	1000	160089	1005	090003	1005	160089	1015
	090003	1015	170015	1015				
	140007	1025	170016	1025	160047	1030	140003	1035
	160091	1045	090019	1045	030007	1055	160047	1100
	140023	1112	170017	1125	160047	1130	170019	1135
	140003	1145	170018	1145	160089	1155	090003	1155
	160018	1155	160025	1155	170020	1155	170021	1202
	160047	1205	170022	1205	030007	1215		
	160047	1230	170023	1255	170024	1255	170031	1255
	160069	1300	160045	1305	160070	1305	170025	1325
	170026	1325			160018	1335	160053	1335
	170027	1335	160060	1345	160018	1355	160057	1355
	170028	1355	160061	1405			170029	1425
	160047	1430			170030	1435	030007	1440
					160047	1500	030007	1510
	160063	1521	160058	1554	160066	1555	160067	1620
	160068	1620	160071	1654	00EV22	1708		
17EK APP AND LAND	160001	0	160002	10	140032	42	160003	42
MLS PROCEDURAL	170001	50	030007	55	170002	55	160011	105
PILOT INCAPIC	170003	105	160005	115	170004	115	090016	140
	090017	140	160006	144			170005	200
	160007	209	140007	210	090016	220	090003	220
	170006	220	170007	245	160019	335	090002	250
	090003	250	090002	300	090003	300	090018	310
	090019	310	030007	355	170008	400	140007	410
	170009	415	090018	425	090019	425	030007	455

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	170010	515	090002	525	090003	525	160017	525
	160018	525	170011	525	140003	535	170012	535
	090038	545	090039	545	030007	555	160000	635
	16EK09	625	17EK00	625	17EK01	625	030007	655
			16EK12	825	16EK06	855	170013	855
	16EK10	905	17EK02	915	160038	920	030007	945
	16EK02	1015	17EK18	1015	16EK18	1025	17EK03	1025
	16EK06	1035	030007	1045	16EK10	1045	17EK04	1125
	17EK19	1135	16EK06	1145	17EK05	1145	16EK02	1155
	16EK07	1155	16EK08	1155	17EK06	1155	17EK21	1155
	17EK07	1205	17EK08	1255	17EK09	1255	17EK21	1255
	16EK34	1300	160045	1305	17EK10	1325	17EK22	1325
			16EK08	1335	16EK29	1335	17EK11	1335
	160060	1345	16EK08	1355	16EK32	1355	17EK12	1355
	16EK35	1405			17EK13	1425		
	17EK14	1435	030007	1455			17EK15	1521
	16EK38	1555	17EK16	1610	17EK17	1620	16EK63	1654
1800 APP AND LAND - AFD ILS PROCEDURAL	090051	00	180002	0	180001	10	00EV13	10
	140032	40	160003	40	170004	50	090048	100
	180004	105	160005	115	160006	144	090067	205
	180005	205	160007	209	180006	215	00EV14	240
	160011	255						
	180007	255	030007	300	090048	300	180008	305
	090048	400	180009	405	030007	430	090051	500
	090067	515	180010	515	030007	530	180011	535
	160018	555	160025	555	180012	555	090048	600
	00EV02	600						
	180013	610	180014	615	180015	620	030007	630
	00EV14	625						
	180016	655	090048	700	030007	730	030007	730
	090048	800	140023	805	150020	835	180017	835
	180018	835	090048	900	180019	915	180020	925
	00EV12	945						
	030007	930	090048	1000	030007	1030	090048	1100
	00EV03	1045	00EV16	1100				
	030007	1130	090048	1200	180021	1225	030007	1230
	180039	1235	090048	1300	180022	1320	180023	1320
	030007	1345	160039	1350	180024	1350	180025	1425
	180033	1435	030007	1500	090051	1500	090067	1515
	180026	1515	180027	1515	160045	1535	180028	1535
	030007	1600	090048	1600	180029	1635	160069	1640
	160053	1645	160018	1645				
	180071	1645	180030	1645	180031	1645	030007	1700
	160057	1705	160018	1705	180032	1705		
	160070	1725	180072	1730				
	00EV12	1740	030007	1800				
	180072	1800	160059	1825	160060	1830	180072	1830
	00EV03	1840						
	180034	1835	160062	1855	030007	1900	180072	1900
	00EV13	1910						
	180072	1930	160095	1955	160064	1955	180071	2000
	180035	2010	180036	2020	180038	2050	00EV32	2031
	00EV32	2050	180037	2120				
1801 APP AND LAND - AFD MLS PROCEDURAL	090051	0	180001	0	180002	5	140032	40
	160003	40	170004	50	090051	100	180004	105
	160005	115	160006	144	090067	205	180005	205
	160007	209	180006	215	160011	255	180007	255
	030007	300	090051	300	180008	305	090051	400
	180009	405	030007	430	090051	500	090067	515

	180010	515	030007	530	180011	535	160017	545
	160018	545	180050	545	180051	555	030007	600
	090051	600	180052	656	030007	700	090051	700
	140023	735	030007	800	180053	835	180054	835
	180055	840	180056	845	090051	850	180018	850
	030007	900	090051	900	170014	935	090067	945
	180057	945	030007	1000	090051	1000	140023	1025
	180058	1040	180025	1100	180059	1100	160018	1110
	160025	1110	180060	1110	090051	1115	160045	1120
	180061	1120	090067	1130	180062	1130	090051	1140
	030007	1200			160069	1210	180063	1210
	180064	1210	160074	1215	160018	1216	160053	1216
	180030	1216	180065	1217	160060	1220	090051	1230
	160018	1235	160057	1235	180066	1235		
	090051	1300	180067	1305	180068	1310	030007	1315
	090051	1330	160063	1405			090051	1440
	160095	1440	180036	1450	180038	1520	180037	1546
18EK APP AND LAND - AFD	090051	0	180001	0	180002	5	140032	40
ILS - PILOT INCP	160003	40	170004	50	090051	100	180004	105
	160005	115	160006	144	090067	205	180005	205
	160007	209	180006	215	160011	255	180007	255
	030007	300	090051	300	180008	305	090051	400
	180009	405	030007	430	090051	500	090067	515
	180010	515	030007	530	180011	535	160018	555
	160025	555	180012	555	090051	600	180013	610
	180014	615	180015	620	030007	630	180016	655
	090051	700	030007	730	030007	730	090051	800
	140023	805	150020	835	180017	835	180018	835
	090051	900	180019	915	180020	925	030007	930
	090051	1000	090051	1100	16EK50	1111	18EK00	1111
			16EK51	1225	180021	1225	16EK52	1235
	16EK53	1300	16EK53	1310	180022	1320	18EK01	1320
	16EK53	1335	030007	1345	180024	1350	16EK51	1350
	16EK51	1400	180025	1410	030007	1410	180074	1415
	180074	1445	180026	1515	16EK51	1515	16EK54	1515
	180023	1525	180074	1525	160045	1555	180074	1600
	030007	1630	180073	1635	180074	1645	16EK29	1645
	16EK08	1645	030007	1655	180031	1700	16EK32	1700
	16EK08	1700	180073	1710	16EK55	1715	16EK34	1720
	180074	1725	16EK65	1755	180074	1800	16EK56	1825
	160060	1830	18EK02	1835	180074	1840	16EK35	1900
	030007	1915	180074	1920	16EK57	1945	16EK58	1948
	180073	1950	180035	1950	180073	2000	180036	2010
	18EK03	2040	16EK59	2110				
18XX APP AND LAND - AFD			090051	0	180001	0	180002	5
MLS - PILOT INCP	140032	40	160003	40	170004	50	090051	100
	180004	105	160005	115	160006	144	090067	205
	180005	205	160007	209	180006	215	160011	255
	180007	255	030007	300	090051	300	180008	305
	090051	400	180009	405	030007	430	090051	500
	090067	515	180010	515	030007	530	180011	535
	160017	545	160018	545	180050	545	180051	555
	030007	600	090051	600	180052	656	030007	700
	090051	700	140023	735	030007	800	180053	835
	180054	835	180055	840	180056	845	090051	850
	180018	850	030007	900	090051	900	170014	935
	090067	945	180057	945	030007	1000	090051	1000
	140023	1025	180058	1040	180025	1100	180059	1100
	18EK00	1110	180060	1110	16EK53	1110	16EK07	1120
	16EK08	1120	180061	1120	180062	1130	16EK51	1130

[illegible]

[illegible]

		16EK50	1135	160045	1150	030007	1200		
		16EK34	1205	180063	1210	18EK04	1210	180030	1216
		16EK29	1216	16EK08	1216	180065	1217	160060	1220
		16EK35	1220	180066	1235	16EK32	1238		
		16EK08	1238	030007	1245	18EK05	1250	180067	1305
		180068	1310	18EK05	1320	18EK05	1350		
		18EK05	1420	16EK58	1432	180036	1450		
		18EK03	1520	16EK59	1550				
2000	SHUTDOWN	200001	0	200002	30	200003	52	200005	142
		200006	200	200007	215	200008	242	200009	304
		200010	337	200011	417	200012	430		
20EK	SHUTDOWN- PILOT INCAPACITATED	20EK01	0	20EK02	32	20EK03	56	20EK05	142
		20EK06	214	20EK07	236	20EK08	301	20EK09	341
		20EK10	349						
2300	TAXI - AFTER LANDING	230001	0	00EV10	5	00EV05	100	230002	118
		00EV13	140	230003	127	230004	240	00EV04	320
23EK	TAXI - AFTER LANDING -PILOT INCAPACITATED	23EK01	0	23EK02	13	23EK03	120	23EK04	240
A9FD	NOISE ABATEMENT	090001	0		0	090003	0	00EV18	00
		090004	10	090054	10				
	CLIMB - NORMAL AWY-FFD	030007	15	090054	20	090003	20	090005	20
			30	090006	30	090003	32		40
		090003	42	030007	45		50	090003	52
			100	090009	102	090007	103		108
		090003	108	030007	110		118	090009	118
		090010	123		125	090009	125	090003	130
		090009	140	030007	140	090012	142	090011	145
			145	090017	145	090013	152	090021	155
		090014	205		215	090019	215	030007	230
		030007	300		315	090003	315	090015	315
			325	090003	325	090020	335	090003	335
			355	030007	355		405	090019	405
		090023	410	090024	500		505	090019	505
		030007	510		605	090019	605	030007	605
		090025	650		705	090017	705	090026	707
		140023	707	030007	710		735	090003	735
			745	090009	745	090027	750		750
		090019	750	030007	755		850	090019	850
		030007	850	030007	945		950	090019	950
			1050	090017	1050	030007	1100		1120
		090017	1120	090028	1140		1150	090019	1150
			1250	090019	1250	090029	1310		1350
		090017	1350	030007	1410	090030	1430		1430
		090019	1430	030007	1455	030007	1515		1530
		090019	1530	030007	1555		1630	090017	1630
		00EV09	1640						
		090031	1645	090032	1700	140023	1705	030007	1710
			1705	090017	1705	090033	1715		1735
		00EV15	1740	090009	1735	090034	1740	090035	1800
			1805	090037	1805	030007	1825	030007	1925
		090037	1935	030007	2025	090039	2105	030007	2125
		030007	2225	00EV05	2245		2305	090039	2305
		00EV05	2245						
		090040	2305	030007	2330	00EV12	2330		2505
		030007	2425						
		00EV03	2425	00EV15	2435				
		090019	2505	030007	2525	030007	2625	090041	2605
			2610	090017	2610		2640	090003	2640
		090042	2650		2650	090003	2650		2700
		090003	2700	090043	2700	090044	2710		2720

	090039	2720	030007	2825	090045	2845		2920
	00EV01	2935						
	090003	2920	030007	2925		2930	090003	2930
	00EV03	2930		2940	090009	2940		
11FD CRUISE - NORMAL AWY	110001	0 0 0		0	090039	0	110002	0
	00EV17	00	030007	40	110003	140	030007	140
	030007	240	090037	200	090037	330		
		500	090039	500	110004	625		700
	090039	700	00EV12	820	110005	845	110006	900
	110007	905						
		910	090039	910	030007	340	030007	440
	030007	540	030007	640	030007	740	030007	840
	110008	930	030007	950	00EV14	1015	030007	1040
		1110						
	090039	1110	030007	1140	110009	1150	030007	1240
		1310	090003	1310	110010	1320		1320
	090003	1320		1330	090009	1330		
14FD DESCENT - FFD					00EV15	00	140001	0
	140002	0	140003	0		10	090039	10
	030007	26	030007	135		210	090009	210
	140003	215	140004	215		225	090019	225
	030007	235	140005	305	140006	325	140007	325
	030007	335		335	090003	335	030007	435
	00EV12	500						
		345	090039	345	140008	447	030007	535
	140007	545	140009	545		555	090037	555
	00EV04	600						
	140010	605	140011	615	030007	635	00EV17	635
	030007	725	090037	725	140012	745		
	030007	835	090039	855	030007	935	030007	1035
		1055	090003	1055	140013	1055	140003	1105
	140014	1105		1115	090037	1115	030007	1135
	030007	1235	090037	1245	030007	1335		
	090039	1415	030007	1435	030007	1535		
		1615	090019	1615	030007	1635		1715
	090017	1715	030007	1735		1745	090009	1745
		1750	090037	1750	140015	1750	140016	1750
	140017	1811	140018	1831	140032	1838	030007	1840
	090037	1920	030007	1935	030007	2035	090039	2050
	030007	2135	030007	2235	00EV03	2235		
	00EV03	2235						
	140019	2240	140020	2245		2250	090019	2250
	00EV18	2305						
	140022	2255	140023	2256	140021	2310	030007	2335
	140003	2350	140024	2350			110012	2400
	140025	2405	030007	2435	140026	2510		
	030007	2535						
	030007	2635	030007	2735	030007	2835	14HLDG	2845
	030007	2935	030007	3035	030007	3135	030007	3235
	00EV16	3240	030007	3335				
	090017	3345	140028	3405	140003	3420	140029	3420
		3430	090039	3430	030007	3435	030007	3535
		3630	090039	3630	030007	3635	030007	3735
	140023	3805	160000	3815		3830	090017	3830
		3900	090003	3900	140003	3910	140030	3910
		3920	090003	3920	140031	3930	030007	3935
		3930	090003	3930				
16FD APP AND LAND - FFD	160001	00		00	16AF06	00	00EV02	00
	160002	10	00EV08	20				
ILS PROCEDURAL	160003	42	140032	46	160004	54	160005	55

200

	60	16AF06	60	00EV06	110	160006	124
00EV03	140	160007	149		200	16AF04	200
	210			00EV03	210		220
090009	225	160008	220	00EV18	225	030007	230
140007	230						
160009	230	16AF04	240	160010	245		
160011	245			160012	250		
16AF06	255	160013	255	160014	315	16AF06	355
160015	355	160016	401	160017	405	160018	405
030007	425		455	16AF06	455	160019	510
030007	525	160020	540	160021	550	140007	555
		16AF05	605	030007	625	160022	635
16AF04	635	16AF04	645				
140003	655	160018	655	160023	655	160024	655
160025	655	16AF06	705	160041	705		
030007	725	160000	800	160041	805	16AF06	805
030007	825	16AF04	905	160041	905	030007	925
16AF06	915						
140023	942	160041	1005	140003	1015	160026	1015
160038	1020	030007	1025	16AF06	1025		
		160039	1030	160040	1040	160027	1055
160042	1100	160028	1103	160041	1105	160029	1113
030007	1125	16AF06	1125	160042	1200	160041	1205
16AF05	1225	030007	1225				
160042	1300			16AF04	1305	160030	1305
160041	1305	140007	1315	160031	1315	030007	1325
	1325	16AF06	1325	160042	1400	160032	1405
160033	1405	160041	1405	090009	1425		
140007	1430	160034	1430	160035	1430	160043	1435
16AF06	1440	160042	1500	160041	1505	160036	1510
16AF04	1540	16AF04	1550				
160037	1555	160042	1600			160041	1605
160044	1615	160045	1615	16AF01	1615	160047	1620
16AF03	1620	160048	1630	160049	1635	160047	1640
160048	1650	160047	1700	160048	1710	160050	1715
160051	1720	160052	1730	160055	1730	160053	1730
160054	1732			160047	1740	160048	1750
160056	1755			160057	1800	160069	1800
160070	1805	160047	1810	030007	1820		
160047	1840	160049	1850	160059	1905	00EV14	1905
160060	1910			160047	1955		
160049	2000	16AF02	2020	160064	2030		
160065	2030	160066	2030	160058	2030	160067	2046
160068	2056	160071	2130	00EV22	2146		
SYD132	00	170031	00	180007	00	180073	00
180074	10						
160033	00	SYD133	28	180008	38	160011	38
180050	48	160017	48	160018	48	180073	100
180060	108	160018	108	160025	108	180054	125
180055	135	180056	145	SYD134	221	180074	200
180073	150	180073	230				
180074	240	SYD135	258	170031	300	180074	310
180074	340	160053	405				
160018	405	180073	420	SYA131	423	160069	425
160060	430	160076	430	180073	440	180073	450
180018	500	160057	500	160018	500	180074	510
SYA132	523	160054	530	160045	535	180074	540
00EV14	542	170032	600	180074	610	170032	630
180074	640						
170033	700	170033	710	180074	710	SYSFAF	712

SIM1 180 DEG CURVED MAN.

APP TO LAND, ROLL
WINGS LEVEL 1.5 MI.
FROM TD

		160058	712	090049	720	180073	740	160067	742
		160068	747						
SIM2	CURVED 180 DEG AUTO	SYD132	00	180071	00	180007	00	180073	00
	APP TO LAND ROLL	160033	00	SYD133	28	180071	30	180008	38
	WINGS LEVEL 1.5 MI	160011	38	180050	48	160017	48		
	FROM TD	160018	48	180071	100	160025	108	160018	108
		180054	125	180071	130	180055	135	180056	145
		180074	150	180039	200	180070	210	180070	220
		180074	220	SYD134	221	180071	230	180074	250
		SYD135	258	180071	300	180074	320	180071	330
		180074	350	180071	400	160053	405	160018	405
		180018	420	SYA131	423	160069	425	160060	430
		160076	430	180070	432	180073	440	180071	442
		180073	450	180068	500	160057	500	160018	500
		180071	512	180073	520	SYA132	523	160054	530
		160045	535	180074	540	180071	542	00EV14	542
		180074	610	180071	612	180074	640	180071	642
		180074	710	SYSFAF	712	180070	712	160058	712
		00EV42	722	180073	740	160067	742	160068	747
SIM3	180 CURVED MAN APP/	SYD132	00	170034	00	180007	00	160011	00
	LAND- ROLL OUT AT	160015	06	160016	06	180073	10	180073	20
	THRESHOLD	180050	26	160017	26	160018	26	160061	32
		180073	40	160020	46				
		180073	50	180073	100	170034	100	180060	106
		160065	106						
		160018	106	160069	106	SYD135	112	180054	112
		180055	122	180056	132	160050	142	160060	145
		180073	150	090002	200	180039	202	160053	202
		160018	202	170032	210				
		180074	210	170033	240	180074	240	170033	250
		170031	300	180074	310				
		180074	340	180074	410	160056	419	180066	439
		160057	439	160018	439	160076	445	180074	450
		SYA132	506	180074	520	160054	524	00EV12	524
		170032	600	160058	627	00EV43	627	090002	630
		160067	632	160068	637				
SIM4	180 CURVED AUTO APP/	SYD132	00	180071	00	180007	00	160011	00
	LAND- ROLL OUT AT	180073	10	180029	06	180050	26	160017	26
	THRESHOLD	160018	26	180071	30	180031	30	180029	32
		180073	40	180029	46	180073	50	180071	100
		180073	100	180060	106	160025	106	160018	106
		160069	106						
		SYD135	112	180033	112	180054	112		
		180070	120	180055	122	180056	132	180040	135
		180073	140	180029	142	160060	145	180073	150
		180075	150	160053	202	160018	202		
		180074	210	180074	240	180074	310	180074	340
		180074	410	180029	419	180066	439		
		160057	439	160018	439	160076	445	180074	450
		180071	450	180074	520	SYA132	506	180071	520
		160054	524	00EV12	530	180074	550	180070	550
		180070	600	180072	610	180030	620	160058	627
		160065	629	160067	632	160068	637		
DUMY	DUMMY PHASE	DUMMY	0						

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EVENT/PROCEDURE								
00XX01 MASTER CAUTION WARN	7A 24	0	10 #1	7A 25	.73	10 P1		
LIGHT PROCEDURE	7A 37	2.9	10 P1			10		
00XX02 CHECKLIST RETRIEVAL	1PXXXX01	0	10 P1	1P 02	0	10CP1		
PROCEDURE	8B 02	1.5	10CP2	8B 05	7.4	10CP2		
00XX03 CHECKLIST COMPLETE	1PXXXX02	0	10CP1	1P 06	0	10 P3		
PROCEDURE	1P 03	1	10 P1	8B 08	1.5	10CP1		
00BA01 READ AND DO C/L FUEL	1P00BA01	0	10 P1	1P 07	0	10CP3		
HEAT VALVE FAILURE	1P00BA02	2.3	10CP1	1P 17	2.3	10 P4		
	7F 09	4.3	10CP1	7F 10	4.3	10CP1		
	1P00BA03	6.4	10CP1	1P 02	6.4	10 P1		
00BB01 READ AND DO C/L MIN	1P00BB01	0	10 P1	1P 02	0	10CP1		
FUEL GO-AROUND	1P00BB02	1.5	10CP1	1P 02	1.5	10 P1		
	1P00BB03	3	10CP1	1P 06	3	10CP3		
	7C 24	4	10 P2	7C 26	6.4	10 P1		
	7C 30	7.8	10 P2	7C 35	9.4	10 P2		
	7C 38	10.8	10 P1	7C 42	12.2	10 P2		
	1P00BB04	13.7	10 P1	1P 06	13.7	10CP3		
	1P00BB05	14.7	10CP1	1P 02	14.7	10 P2		
	7C 16	16.7	10 P2	1P00BB06	18.7	10 P1		
	1P00BB07	19.2	10CP1	1P 07	19.2	10 P3		
	1P00BB08	21.5	10 P1	1P 06	21.5	10CP1		
00BC01 READ AND DO C/L FUEL	7C 47	0	10CP1	1P00BC01	1	10CP1		
FILTER ICING	1P 02	1	10 P1	1P00BC02	2.5	10 P1		
	1P 06	2.5	10CP3	7C 18	3.5	10 P1		
	7C 50	5.5	10 P2	7C 51	6.0	10 P2		
	1PXXXX05	6.0	10 P1			10		
	7F 09	7.7	10 P1	7F 10	7.7	10 P1		
00BD01 MONITOR FUEL GAGES,	7C 11	0	10 P3	7C 09	0	10 P3		
IDENTIFY FUEL XFR	7C 10	0	10 P3	1P00BD01	3	10 P1		
PROBLEM	1P 04	3	10CP1			10		
00BD02 READ AND DO C/L FUEL	1P00BD02	0	10CP1	1P 12	0	10 P1		
XFR PROBLEM	1P00BD03	2.5	10CP1	1P 14	2.5	10 P3		
	7C 17	4.1	10 #2	7C 13	6.1	10 P1		
	7C 31	6.7	10 P3	7C 35	9.1	10 P2		
	1PXXXX04	10.4	10 P1	1P 11	10.4	10CP1		
	1P00BD04	10.9	10CP1	1P 04	10.9	10 P2		
	7C 24	13.1	10 P1	1PXXXX05	14.6	10 P1		
	1P 11	14.6	10CP1	1P00BD05	15.1	10CP1		
	1P 13	15.1	10 P2	1P00BD06	17.5	10 P1		
	1P 12	17.5	10CP1	1P00BD07	20.1	10CP1		
	1P 09	20.1	10 P1	7C 30	21.4	10 P1		
	7C 34	23.0	10 P1	1PXXXX05	24.4	10 P1		
	1P 11	24.4	10CP1	1P00BD08	24.9	10CP1		
	1P 09	24.9	10 P2	1P00BD09	26.3	10 P1		
	1P 14	26.3	10CP3			10		
00CB01 READ AND DO C/L CSD	1P00CB01	0	10 P1	1P 02	0	10 P3		
LOW OIL PRESSURE LT	1P00CB02	3	10CP1	1P 02	3	10 P2		
	7B 09	5	10 P2	7B 10	5	10 P2		
	7B 11	6	10 P2	7B 12	6	10 P2		
	7B 13	7	10 P2	1P00CB03	8	10 P1		
	1P 11	8.5	10CP1	7L 13	9	10 P4		
	7L 01	11.3	10 P1	7L 23	13.4	10 P1		
	7B 24	14.3	10 P1	7B 44	14.9	10 P2		
	7B 25	16.4	10 P1	7B 36	16.4	10 P1		
	1P00CB05	17	10 P1	1P 04	17	10CP3		
	7B 68	18.8	10 P2	7B 72	21	10 P1		
	7B 63	23.6	10 P1			10		
00CD01 READ AND DO C/L	1P00CD01	0	10CP1	1P 02	0	10 P2		
STDBY PWR OFF LT	1P00CD02	2	10CP1	1P 02	2	10 P1		

		7B 18	3.5	10 P1	7B 15	4.7	10 P1
		7B 19	7.6	10 P2	1P00CD03	7.8	10 P1
		1P 11	7.8	10CP1			10
00CE01	READ AND DO C/L BUS	1P00CE01	0	10 P1	1P 02	0	10CP1
	OFF LT	1P00CE02	1.5	10CP1	1P 06	1.5	10 P3
		7B 28	2.5	10 P2	7B 38	2.5	10 P2
		7B 34	3.5	10 P1	7B 29	5.5	10 P1
		7B 39	6.1	10 P1	1P00CE03	6.6	10CP1
		1P 06	6.6	10 P1	1P00CE04	9.1	10 P1
		1P 04	9.1	10CP2			10
00CF01	READ AND DO C/L XFR	1P00CF01	0	10CP1	1P 02	0	10 P2
	BUS OFF LT	1P00CF02	2	10CP1	1P 06	2	10 P1
		7B 26	4.5	10 P2	7B 23	5.5	10 P1
		7B 27	8.3	10 P1	1P00CF03	8.9	10 P1
		1P 06	8.9	10CP3			10
00CG01	READ AND DO C/L	1P00CG01	0	10CP1	1P 06	0	10 P1
	EQUIP COOLING LT OFF	1P00CG02	2.5	10CP1	7B 80	3.5	10CP1
		7B 79	5.2	10CP1	7B 81	6.3	10CP1
		1P00CG03	6.3	10CP1	1P 02	8.5	10 P1
00DA01	READ AND DO C/L YYD	1P00DA01	0	10CP1	1P 02	0	10 P2
	SYS A LOSS	1P00DA02	2	10CP1	1P 02	2	10 P3
		4A 19	5	10 P1	4A 07	6.05	10 P1
		4A 03	6.71	10 P1	1P00DA03	10.04	10 P1
		1P 02	10.04	10 P2	4A 08	12	10 P3
		1P00DA04	12	10CP1	1P 02	12.9	10 P2
		7A 09	14.9	10CP1	7A 02	15.45	10CP4
		7A 10	18.2	10CP1	7A 37	18.8	10CP1
		7A 04	21.0	10CP3	7A 38	22.46	10CP1
		1P00DA05	23.01	10CP1	1P 02	23.01	10 P3
		4H 06	24.4	10 P1	1P00DA06	26.8	10 P1
		1P 02	26.8	10CP2	7A 21	28.8	10CP1
		7A 19	30.9	10CP2	7A 20	32.9	10CP1
		1P00DA07	34.9	10CP1	1P 17	34.9	10 P1
		1P00DA08	38.4	10CP1	1P 17	38.4	10 P1
		1P00DA09	41.9	10CP1	1P 17	41.9	10 P1
		1P00DA10	45.4	10 P1	1P 17	45.4	10CP1
		1P00DA11	49.4	10 P1	1P 07	49.4	10CP1
00FA01	READ AND DO C/L GEAR	4D 55	0	10CP1	1P00FA01	1	10 P1
	NOT SEALED LT	1P 02	1	10CP2	1P00FA02	10.0	10CP1
		1P 06	10.0	10 P1	1P00FA03	12.5	10CP1
		1P 02	12.5	10 P2	4D 54	14.5	10CP1
		4D 56	17.4	10CP1			10
00FC01	READ AND DO C/L SYS	7A 19	0	10CP2	1P00FC01	0	10CP1
	A/B BRAKE PRESS LOSS	1P 02	0	10 P2	1P00FC02	10.0	10CP1
		1P 02	10.0	10 P2	1P00FC03	12.0	10CP1
		1P 02	12.0	10 P1	4D 41	13.5	10CP1
		1P00FC04	16.1	10CP1	1P 03	18.1	10 P1
00FG01	READ AND DO C/L ANTI	4D 37	0	10CP1	1P00FG01	.6	10CP1
	-SKID INOP LT	1P 02	.6	10 P2	1P00FG02	10.6	10CP1
		1P00FG03	13.1	10CP1	1P 17	10.6	10 P3
		4D 41	14.6	10CP1	1P00FG04	17.1	10CP1
		1P 17	17.1	10 P3	1P 03	21.1	10 P1
		1P00FG05	21.6	10CP1	1P 02	21.6	10 P1
		1P 03	23.1	10 P1			10
00FF01	READ AND DO C/L AUTO	4D 39	0	10CP1	1P00FF01	.6	10CP1
	BRAKE INOP	1P 02	.6	10 P2	1P00FF02	10.6	10CP1
		1P 02	10.6	10 P2	1P00FG03	12.6	10CP1
		1P 02	12.6	10 P2	4D 41	14.6	10CP1
00GA01	READ AND DO C/L DUCT	1P00GA01	0	10CP1	1P 02	0	10 P2
	OVERHEAT LT	1P00GA02	2	10CP1	1P 02	2	10 P2

		7D	29	4	10CP1	7D	41	5.88	10CP1
		7D	43	9.09	10CP1	7D	44	11.78	10CP1
		7D	47	13.85	10CP2				10
00GA02	DUCT TEMP INCR OR MIX VALVE MOVES TO HOT				10				10
					10				10
					10				10
00GA03	READ AND DO C/L DUCT OVRHT FOR EVENT GA02	1P00GA03		0	10CP1	1P	02	0	10 P2
		7D	56	2	10CP1	7D	43	5.23	10CP1
		7D	44	7.38	10CP1				10
00GB01	READ AND DO C/L PACK TRIP OFF LT	1P00GB01		0	10CP1	1P	02	0	10 P1
		1P00GB02		1.5	10CP1	1P	02	1.5	10 P1
		7D	42	3.0	10CP1	7D	53	6.21	10CP2
		7D	43	8.33	10CP3	7D	44	9.33	10CP1
		1P00GB03		11.40	10CP1	1P	02	11.40	10 P2
		7D	29	13.40	10CP1	7D	22	15.28	10CP1
00GC01	READ AND DO C/L WING -BODY OVRHT LT	1P00GC01		0	10CP1	1P	02	0	10 P2
		1P00GC02		2	10CP1	1P	06	2	10 P1
		7D	31	4.5	10CP2	7D	41	6.35	10CP2
		7D	43	9.56	10CP3	1P00GC03		10.56	10CP1
		1P	02	10.56	10 P1	7D	28	12.06	10CP1
		7D	22	14.66	10CP1				10
00GD01	READ AND DO C/L BLEED TRIP OFF LT	1P00GD01		0	10CP	1P	02	0	10 P1
		1P00GD02		1.5	10CP	1P	02	1.5	10 P2
		7D	29	3.5	10CP	7D	26	5.38	10CP1
00GE01	READ AND DO C/L AUTO FAIL LT	1P00GE01		0	10CP1	1P	02	0	10 P1
		1P00GE02		1.5	10CP1	1P	02	1.5	10 P2
		7E	19	3.5	10CP1	7E	23	6.15	10CP1
		7E	27	7.12	10CP1	7E	02	7.78	10CP2
		7E	01	9.83	10CP1				10
00GF01	READ AND DO C/L OFF SCHED DESCENT	1P00GF01		0	10CP1	1P	02	0	10 P2
		1P00GF02		2	10CP1	1P	16	2	10 P3
		3H	02	5	10CP1	7E	09	5.77	10CP1
		7E	10	8.56	10CP1	7E	25	9.76	10CP1
		7E	01	11.06	10CP1				10
00HA01	READ AND DO C/L ANTI -ICE VALVE FAIL OPEN	1P00HA01		0	10CP1	1P	17	0	10 P1
		1P00HA02		3.5	10CP1	1P	07	3.5	10 P1
		3U	01	8	10 *1				10
00JA01	READ AND DO C/L OUTR FFD WINDOW CRACKED	1P00JA01		0	10CP1	1P	02	0	10 P1
		1P00JA02		12	10CP1	1P	02	12	10 P2
		7K	15	14	10CP1	7K	14	14	10CP1
		1P00JA03		15.2	10CP1	1P	07	15.2	10 P1
		1P00JA04		19.7	10CP1	1P	07	19.7	10 P1
		1P00JA05		24.2	10CP1	1P	07	24.2	10 P1
		1P	03	28.7	10 P1	1P00JA06		29.2	10 P1
		1P	02	29.2	10CP2	1P	03	31.2	10CP1
00JB01	READ AND DO C/L WINDOW OVRHT LT ON	1P00JB01		0	10CP1	1P	02	0	10 P2
		1P00JB02		2	10CP1	1P	02	2	10 P2
		7K	15	4	10CP1	7K	16	4	10CP1
		1P00JB03		5.2	10CP1	1P	16	5.2	10 P3
		1P	03	8.2	10 P1				10
00KA01	READ AND DO C/L STAB TRIM RUNAWAY	1P00KA01		0	10 P1	1P	02	2	10CP2
		4G	09	2	10 P2	1P00KA02		12.22	10CP1
		1P	07	12.22	10 P1	1P	03	16.72	10 P1
		1P00KA03		17.22	10CP1	1P	02	17.22	10 P2
		1P	03	19.22	10 P1	1P00KA04		19.72	10CP1
		4G	16	21.72	10 P1	4G	05	26.72	10 P1
00KB01	READ AND DO C/L JAM-MED CNTRLS	1P00KB01		0	10 P1	1P	17	0	10CP3
		1P	03	3.5	10CP1	4A	64	3.5	10 *3
		1P00KB02		18.5	10CP1	1P	16	18.5	10 P3
		1P00KB03		21.5	10CP1	1P	07	21.5	10 P1

		1P	03	26	10 P1				10
00KC01	READ AND DO C/L JAM-	1P00KC	01	0	10 P1	1P	17	0	10CP3
	MED STAB CNTRL	4G	05	.5	10 P1	1P	03	4	10CP1
		4G	16	4	10 P1	4G	16	4	10CP2
		4G	02	8.5	10 P3	4G	02	8.5	10CP2
		1P00KC	02	21.92	10CP1	1P	17	21.92	10 P3
		4G	17	25.92	10 P1	4G	17	25.92	10CP2
		1P	03	29.42	10 P1	1P00KC	03	29.92	10CP1
		1P	06	29.92	10 P1	1P	03	32.42	10 P1
		1P00KC	04	32.92	10CP1	1P	16	32.92	10 P3
		1P00KC	05	35.92	10CP1	1P	07	35.92	10 P1
		1P	03	40.42	10 P1	1P00KC	06	40.92	10CP1
		1P00KC	07	44.92	10 P1				10
00KX01	READ AND DO C/L FOR	1P00KX	01	0	10CP1	1P	10	0	10 P1
	ABNORMAL CONDITION	7J	08	1	10CP2	7J	10	3.76	10CP1
		7J	02	5.26	10CP1	7J	12	7.05	10 *1
		7J	14	7.59	10 *1	7J	16	8.13	10 *1
		7J	22	8.67	10 *1	7K	07	9.21	10CP1
		7K	11	13.43	10 *1	7J	24	14.57	10CP3
		7J	26	15.99	10CP3	7J	28	17.41	10 *2
		7J	30	17.41	10 *2	7J	32	17.91	10 *2
		7J	34	17.91	10 *2	7J	36	18.41	10 *2
		7J	38	18.41	10 *2	1P00KX	02	18.91	10CP1
		1P00KX	03	19.41	10CP1	1P	02	19.41	10 P2
		7E	06	21.15	10CP1				10
		7E	08	22.31	10CP1	7E	01	23.48	10CP1
		1P00KX	04	24.76	10CP1	1P	02	24.76	10 P1
		1P00KX	05	26.26	10CP1	1P	02	26.26	10 P1
		7M	03	27.26	10 P3	7M	06	31.30	10 P4
		1P00KX	06	33.04	10 P1	1P	06	33.04	10CP4
		1P00KX	07	33.84	10CP1	1P	06	33.84	10 P1
		1P	03	36.34	10 P1	1P00KX	08	36.84	10CP1
		1P	02	36.84	10 P1	1P00KX	09	38.34	10 P1
		1P	10	38.34	10CP1	1P00KX	10	39.34	10CP1
		1P	02	39.34	10 P2	3A	05	41.34	10 *3
		1P00KX	11	43.91	10 P1	1P	06	43.91	10CP1
00K 01	READ AND DO C/L LNDG	1P00K	01	0	10CP1	1P	06	0	10 P1
	- FLT CNTRL PROBLEMS	1P00K	02	2.5	10CP1	1P	10	2.5	10 P1
		7A	28	3	10CP1	7A	33	4.93	10 *1
		1P00K	03	5.63	10CP1	1P	06	5.63	10 P4
		1P00K	04	6.13	10CP1	1P	10	6.13	10 P1
		4F	02	7.13	10 P3	4F	07	10.39	10 P2
		1P00K	05	10.39	10 P1	1P	10	10.39	10CP1
		1P00K	06	11.39	10CP1	1P	10	11.39	10 P1
		4E	15	11.89	10CP4	4E	17	12.86	10CP1
		1P00K	07	13.86	10CP1	1P	02	13.86	10 P1
		1P00K	08	15.36	10CP1	1P	10	15.36	10 P1
		4D	04	16.36	10 *1	4D	05	18.45	10 *2
		4D	09	18.45	10CP3	1P00K	09	19	10 P1
		1P	02	19	10 P1				10
00KD01	FLAP ASYM ADVISORY -	1P00KD	01	0	10CP1	1P	06	0	10 P1
	LE DEVICES	1P00KD	02	2.5	10 P1	1P	06	2.5	10CP1
00KL01	FLAP ASYM ADVISORY -	1P00KL	01	0	10CP1	1P	07	0	10 P1
	TE FLAPS	1P00KL	02	4.5	10 P1	1P	07	4.5	10 P1
		1P00KL	03	9	10 P1	1P	07	9	10CP1
00KM01	FLAPS UP LNDG AVDSRY	1P00KM	01	0	10CP1	1P	07	0	10 P1
		1P00KM	02	4.5	10 P1	1P	19	4.5	10CP1
		1P00KM	03	8.5	10CP1	1P	17	8.5	10 P1
		1P00KM	04	12	10 P1	1P	16	12	10CP3
00KN01	READ AND DO C/L FLT	1P00KN	01	0	10CP1	1P	02	0	10 P2

	CNTRL LOW PRESS LT	1P00KN02	2	10CP1	1P	06	2	10	P1
		4A 19	4.5	10 P1	4A	07	5.5	10	P1
		4A 03	6.2	10 P1	1P00KN03		9.6	10	P1
		1P 02	9.6	10CP1				10	
00KP01	READ AND DO C/L YAW	1P00KP01	0	10CP1	1P	02	0	10	P2
	DAMPER LT	1P00KP02	2	10CP1	1P	02	2	10	P2
		4A 14	4	10 P1	4A	54	6.7	10	P1
		4A 13	7.9	10 P1				10	
00KP02	YAW DAMPER DOES NOT	4A 55	0	10 *1	1P00KP03		1.2	10CP1	
	RESET	1P 06	1.2	10 P1	4A	14	3.7	10	P1
		1P00KP04	3.7	10CP1	1P	06	3.7	10	P1
		1P 03	6.4	10 P1				10	
00KQ01	READ AND DO C/L STAB	1P00KQ01	0	10 P1	1P	06	0	10CP1	
	OUT OF TRIM LT	4A 76	0	10 P1	4A	02	2	10	P1
		4A 77	2	10 P1	4G	14	5	10	P3
		1P00KQ02	12	10CP1	1P	02	12	10	P1
		1P00KQ03	13.5	10CP1	1P	02	13.5	10	P2
		1P 03	15.5	10 P1	1P00KQ04		16	10CP1	
		1P 02	16	10 P1	1P	03	17.5	10	P1
		1P00KQ05	18	10CP1	1P	06	18	10	P1
		1P 03	21	10 P1				10	
00KR01	READ AND DO C/L SPD	4F 02	0	10 P4	4F	05	2.8	10	P2
	BRAKE NOT ARMED	1P00KR01	2.8	10 P1	1P	06	2.8	10CP1	
		4F 01	2.9	10 P1	1P00KR02		13	10CP1	
		1P 06	13	10 P1	1P00KR03		15.5	10CP1	
		1P 16	15.5	10 P3	1P	03	18.5	10	P1
		1P00KR04	19	10CP1	1P	16	19	10	P3
		1P 03	22	10 P1				10	
00KS01	READ AND DO C/L MACH	1P00KS01	0	10CP1	1P	02	0	10	P1
	TRIM FAIL	1P00KS02	1.5	10CP1	1P	16	1.5	10	P3
		1P 03	4.5	10 P1	3F	01	5	10	P1
		4B 07	5	10 P2	3F	01	8	10	P1
00EC01	MONITOR SMOKE IN			10				10	
	FLT DECK			10				10	
00EC02	ACTION ITEMS ELEC	7B 33	0	10 P1	7B	30	1.72	10	P1
	SYS SMOKE/FIRE	7B 43	2.31	10 P1	7B	40	4.03	10	P1
		7B 22	4.62	10 P1	7B	26	7.43	10	P1
		7B 36	8.02	10 P1	7A	25	8.61	10CP2	
		7B 66	10.75	10 P2	7B	72	12.93	10	P2
		7B 63	14.99	10 P1	7B	68	17.05	10	P2
		7B 72	19.23	10 P2	7B	63	21.29	10	P1
00EC03	NOTE SMOKE DECREASE			10				10	
00EC04	SMOKE CONTINUE			10				10	
00EC05	READ/RESPOND PRIMARY	1P00EC01	0	10CP1	1P	05	0	10	P1
	C/L ELEC SMOKE/FIRE	1P00EC02	5	10CP1	1P	02	5	10	P2
		1P00EC03	7	10 P1	1P	07	7	10CP1	
		1P00EC04	11.5	10 P1	1P	13	11.5	10CP3	
		1P 03	15	10CP1	1P00EC05		15.5	10CP1	
		1P 02	15.5	10 P2	1PXXXX05		17.5	10	P1
		1P 06	17.5	10CP4	1P00EC07		18	10CP1	
		1P 05	18.0	10 P1	1P00EC08		23	10CP1	
		1P 16	23	10 P3	1P00EC09		26	10CP1	
		1P 02	26	10CP3				10	
00EC06	READ/RESPOND PRIMARY	1P00EC10	0	10CP1	1P	02	0	10	P2
	C/L ELEC SMOKE/FIRE	7B 44	2	10 P2	7B	41	3.5	10	P1
		7B 26	4	10 P1	7B	63	4.7	10	P1
		1PXXXX05	6.8	10 P1	1P00EC11		7.2	10CP1	
		1P 05	7.2	10 P2	1P00EC12		13.5	10	P1
		1P 07	13.5	10CP1				10	
00EC07	READ AND DO C/L -A-	1P00EC12	0	10CP1	1P	02	0	10	P2

	ELEC SMOKE/FIRE	7B	34	1	10 P1	7B	31	3	10 P1
		1P00EC	13	3.6	10CP1	1P	02	3.6	10 P2
		7B	43	4.6	10 P1	7B	40	6.32	10 P1
		7B	63	6.91	10 P2	7B	66	7.91	10 P2
		7B	63	10.09	10 P2	1P00EC	14	11	10 P1
		1P	02	11	10CP3	1P00EC	15	14	10CP1
		1P	07	14	10 P1	1P	03	18.1	10 P1
00EC08	READ AND DO C/L -B-	1P00EC	16	0	10CP1	1P	02	0	10 P2
	ELEC SMOKE/FIRE	7B	42	2	10 P1	7B	41	3.72	10 P1
		7B	63	4.31	10 P2	7B	66	5.31	10 P2
		7B	63	7.49	10 P2	1PXXXX	04	8.49	10 P1
		1P00EC	17	8.99	10CP1	1P	02	8.99	10 P2
		7B	31	10.99	10 P1	1PXXXX	04	11.28	10 P1
		1P00EC	18	11.78	10CP1	1P	02	11.78	10 P1
		1P	03	13.28	10 P1	1P00EC	19	13.78	10CP1
		1P	02	13.78	10 P2	7B	16	15.78	10 P1
		7B	18	18.72	10 P2	1PXXXX	04	19.31	10 P1
		1P00EC	20	19.81	10CP1	1P	02	19.81	10 P1
		7B	55	21.31	10 P1	7B	54	23.37	10 P2
		1PXXXX	05	24.37	10 P1	1P00EC	21	24.87	10CP1
		1P	02	24.87	10 P2	7B	23	26.87	10 P1
		7B	27	29.68	10 P1	7B	37	30.27	10 P1
		1PXXXX	06	30.86	10 P1				10
00EC09	READ ELEC SMOKE/FIRE	1P00EC	22	0	10CP1	1P	05	0	10 P3
	ADVISORIES	1P00EC	23	4	10CP1	1P	05	4	10 P3
		1P00EC	24	8	10CP1	1P	06	8	10 P1
		1P00EC	25	10.5	10 P1	1P	05	10.5	10CP3
00ED01	PILOT/CO-PILOT MON				10				10
	CABIN PRESS DROP				10				10
00ED02	ACTION ITEMS RAPID	7E	20	0	10CP1	7E	28	2.7	10CP1
	DEPRESSURIZATION	7E	13	3.3	10CP1	7E	12	5.5	10CP4
		7G	50	6.2	10 P1	7G	51	8.5	10 P1
00ED03	READ/RESPOND C/L	1A	27	0	10CP1	1P00ED	01	0	10CP1
	RAPID DEPRESSURING	1P	02	0	10 P2	7H	12	2	10 *1
		1A	26	3.5	10 P1	1P	03	4	10 P1
		1A	27	4.5	10CP3	1P00ED	02	4.5	10CP1
		1P	02	4.5	10 P2	1P00ED	03	6.5	10CP1
		1P	02	6.5	10 P2	7E	28	8.5	10 *1
		1A	26	9.2	10CP3	1P00ED	04	9.2	10CP1
		1P	02	9.2	10 P2	7E	12	11.2	10 *4
		1A	26	11.9	10CP3	1P00ED	05	11.9	10CP1
		1P	02	11.9	10 P3	7G	51	14.9	10 *1
		1A	27	15.9	10CP3	1P00ED	06	15.9	10CP1
		1P	02	15.9	10 P2	1A	28	17.9	10 P1
		1P	03	18.4	10 P1	1A	26	18.9	10CP1
		1P00ED	07	18.9	10CP1	1P	02	18.9	10 P3
		1A	26	21.9	10 P1	1P	03	22.4	10 P1
		1A	27	22.9	10CP2	1P00ED	08	22.9	10CP1
		1P	13	22.9	10 P3	7E	01	26.4	10 *1
		7E	02	28.9	10 *1	1A	26	31.31	10CP3
		1P00ED	09	31.31	10CP1	1P	02	31.31	10 P2
		7H	10	33.31	10 *1	1A	26	34.71	10 P1
		1P	03	34.71	10 P1				10
00EE01	PILOT DECIDES EMERG				10				10
	DESCENT REQUIRED				10				10
00EE02	PRIMARY ACTION ITEMS	1G	03	0	10CP1	1G	01	2.32	10 P1
	EMERG DESCENT	1A	27	3.73	10CP4	1P00EE	01	3.73	10 P1
		7M	03	0	10 P3	7M	06	3.54	10 P4
		4A	29	6.78	10 P1	4B	08	6.78	10 P1
		7E	05	7.73	10CP1	7E	06	7.73	10CP2

		7F	33	7.78	10 P2	7F	34	7.78	10 P2
		4F	03	7.78	10 P1	3A	08	10.77	10 P1
		3A	11	12.77	10 P1	3L	03	12.77	10 P1
		3H	04	12.77	10 P1				10
00EE03	READ/RESPOND C/L	1A	27	0	10CP1	1P00EE02		0	10CP1
	EMERG DESCENT	1P	02	0	10 P3	1A	27	3	10CP3
		1P00EE03		3	10CP1	1P	05	3	10 P3
		1A	29	7	10 P4	1P00EE04		7	10 P1
		1P	05	7	10CP3	1A	27	11	10CP2
		1P00EE05		11	10CP1	1P	02	11	10 P1
		1A	27	12.5	10CP2	1P00EE06		12.5	10CP1
		1P	02	12.5	10 P1	1A	27	14	10 *2
		1P00EE07		14	10CP1	1P	02	14	10 P1
		1A	29	15.5	10 P1	1P00EE08		15.5	10CP1
		1P	02	15.5	10 P3	1A	29	18.5	10 P4
		1P00EE09		18.5	10CP1	1A	28	18.5	10 P1
		1A	26	23	10 P1	1P	03	23.5	10 P1
		1A	27	24	10CP3	1P00EE10		24	10CP1
		1P	02	24	10 P2	4F	01	25	10 P1
		1A	27	27.5	10CP2	1P00EE11		27.5	10CP1
		1P	02	27.5	10 P1	7H	10	29	10 *1
		1A	27	30.4	10CP3	1P00EE12		30.4	10CP1
		1P	02	30.4	10 P2				10
00EF01	PRIMARY ACTION ITEMS	7P	39	0	10 *1	7P	47	1	10CP1
	FIRE WARN APU	7P	33	2.35	10 P2	7P	34	4.24	10 P3
		7P	27	6.37	10 P1	7L	01	7.58	10 P1
00EF02	READ/RESPOND C/L APU	1P00EF01		0	10CP1	1P	02	0	10 P1
	FIRE WARN	7L	17	1.5	10 *1	1P00EF02		2.04	10 P1
		1P00EF03		3.54	10CP1	1P	02	3.54	10 P3
		1P	03	6.54	10 P1	1P00EF04		7.04	10CP1
		1P	07	7.04	10 P1	1P	03	11.54	10 P1
		1P00EF05		12.04	10CP1	1P	05	12.04	10 P3
		1P	03	16.54	10 P1				10
00EG01	PRIMARY ACTION ITEMS	7P	39	0	10 *1	7P	47	1	10 P1
	WHEEL WELL FIRE	7P	13	2.35	10 P1	4B	08	3.59	10 P1
		3A	11	6	10 P4	4B	03	22	10 P1
00EG02	ATTAIN GEAR EXT SPD				10				10
	START 160060 6				10				10
00EG03	READ/RESPOND C/L	1P00EG01		0	10CP1	1P	02	0	10 P1
	WHEEL WELL FIRE	1P	03	1.5	10 P1	1P00EG02		2	10CP1
		1P	07	2	10 P1	1P	03	6.5	10 P1
		1P00EG03		7	10CP1	1P	07	7	10 P1
		1P00EG04		11.5	10 P1	1P	05	11.5	10CP3
00XX04	OX MASK/SMOKE GOGGLE	7H	17	0	10 *1	7H	24	4	10 *1
	PROC COCKPIT SMOKE	7H	12	8	10 *1	1A	22	12	10 *1
		1F	06	10	10 *3	1A	27	13.5	10CP2
		1PXXXX01		13.5	10CP1	1P	02	13.5	10 P1
		1A	26	15	10 P3	1PXXXX02		15	10 P1
		1P	02	15	10CP1	&E	03	6	10 *1
		7Q	02	6	10 P1				10
00EX01	READ/RESPOND C/L	1A	27	0	10CP4	1P00EX01		0	10CP1
	COCKPIT SMOKE	1P	06	0	10 P1	1P00EX02		2.5	10CP1
		1P	02	2.5	10 P1	1P00EX03		4	10CP1
		1P	02	4	10 P1	1P00EX04		5.5	10CP1
		1P	02	5.5	10 P1	1A	26	7	10 P1
		1P	03	7.5	10 P1				10
00EH01	ADVISORY/SECONDARY	1A	27	0	10CP3	1P00EH01		0	10CP1
	ITEMS COCKPIT SMOKE,	1P	05	0	10 P3	1A	27	4	10CP3
	NO VENTING OR PRESS	1P00EH02		4	10CP1	1P	02	4	10 P2
	URIZATION	1A	28	6	10 P1	1P	03	6.0	10 P1

			4B	08	7	10 P1	7F	25	7	10 P4
			7F	30	7	10 P3	7F	21	7.44	10 P3
			7F	22	7.44	10 P3	7F	33	7.88	10 P2
			7F	34	7.88	10 P2	3A	10	8.32	10 P1
			1A	27	38.32	10 P2	1P00EH03		38.32	10 P1
			1P	02	38.32	10CP1	1A	29	39.32	10CP3
			1P00EH04		39.32	10CP1	1P	02	39.32	10 P2
00EH02	ADVISORY/SECONDARY		1P00EH05		0	10CP1	7E	19	2.5	10CP1
	ITEMS COCKPIT SMOKE		1P00EH06		5	10CP1	7E	09	9	10CP1
	NORMAL VENTILATION		7E	01	11.79	10CP2	1P00EH07		12.50	10CP1
			7E	11	15.50	10CP1	7E	37	17.63	10CP1
			1P00EH08		18.40	10CP1	7D	10	20.40	10CP1
			7D	22	21.40	10CP1	1PXXXX04		21.90	10CP1
			1PXXXX04		23.40	10CP1	7D	13	25.40	10CP1
			7D	26	25.40	10CP1	1PXXXX04		26	10CP1
			1P00EH09		27	10 P1	1P	05	27	10 P3
			4B	03	31	10 P1	7F	27	33.34	10 P2
			7F	29	33.34	10 P2	1PXXXX06		34.10	10 P1
			1P00EH10		34.60	10CP1	1P	06	34.60	10 P1
			1P	03	37.10	10 P1				10
00IV01	COPILOT MONITOR		2K	56	0	10CP1	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV02	COPILOT MONITOR		2K	56	0	10CP2	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV03	COPILOT MONITOR		2K	56	0	10CP3	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV04	COPILOT MONITOR		2K	56	0	10CP4	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV05	COPILOT MONITOR		2K	57	0	10CP1	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV06	COPILOT MONITOR		2K	57	0	10CP2	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV07	COPILOT MONITOR		2K	57	0	10CP3	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV08	COPILOT MONITOR		2K	57	0	10CP4	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV09	COPILOT MONITOR		2K	58	0	10CP1	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV10	COPILOT MONITOR		2K	58	0	10CP2	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV11	COPILOT MONITOR		2K	58	0	10CP3	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00IV12	COPILOT MONITOR		2K	58	0	10CP4	1P00IV01		5	10CP1
	TRAFFIC SITUATION		1P	02	5	10 P1	1P	03	7	10 P1
00EV01	C/P EXT VIS SCAN		8A	10	0	10CP1				10
00EV02	C/P EXT VIS SCAN		8A	10	0	10CP2				10
00EV03	C/P EXT VIS SCAN		8A	10	0	10CP3				10
00EV04	C/P EXT VIS SCAN		8A	10	0	10CP4				10
00EV05	C/P EXT VIS SCAN		8A	11	0	10CP1				10
00EV06	C/P EXT VIS SCAN		8A	11	0	10CP2				10
00EV07	C/P EXT VIS SCAN		8A	11	0	10CP3				10
00EV08	C/P EXT VIS SCAN		8A	11	0	10CP4				10
00EV09	C/P EXT VIS SCAN		8A	12	0	10CP1				10
00EV10	C/P EXT VIS SCAN		8A	12	0	10CP2				10
00EV11	C/P EXT VIS SCAN		8A	12	0	10CP3				10
00EV12	C/P EXT VIS SCAN		8A	12	0	10CP4				10
00EV13	C/P EXT VIS SCAN		8A	13	0	10CP1				10
00EV14	C/P EXT VIS SCAN		8A	13	0	10CP2				10
00EV15	C/P EXT VIS SCAN		8A	13	0	10CP3				10
00EV16	C/P EXT VIS SCAN		8A	13	0	10CP4				10

00EV17	C/P EXT VIS SCAN	8A	14		0	10CP1							10	
00EV18	C/P EXT VIS SCAN	8A	14		0	10CP2							10	
00EV19	C/P EXT VIS SCAN	8A	14		0	10CP3							10	
00EV20	C/P EXT VIS SCAN	8A	14		0	10CP4							10	
00EV21	PILOT EXT VIS SCAN	8A	10		0	10 P1							10	
00EV22	PILOT EXT VIS SCAN	8A	10		0	10 P2							10	
00EV23	PILOT EXT VIS SCAN	8A	10		0	10 P3							10	
00EV24	PILOT EXT VIS SCAN	8A	10		0	10 P4							10	
00EV25	PILOT EXT VIS SCAN	8A	11		0	10 P1							10	
00EV26	PILOT EXT VIS SCAN	8A	11		0	10 P2							10	
00EV27	PILOT EXT VIS SCAN	8A	11		0	10 P3							10	
00EV28	PILOT EXT VIS SCAN	8A	11		0	10 P4							10	
00EV29	PILOT EXT VIS SCAN	8A	12		0	10 P1							10	
00EV30	PILOT EXT VIS SCAN	8A	12		0	10 P2							10	
00EV31	PILOT EXT VIS SCAN	8A	12		0	10 P3							10	
00EV32	PILOT EXT VIS SCAN	8A	12		0	10 P4							10	
00EV33	PILOT EXT VIS SCAN	8A	13		0	10 P1							10	
00EV34	PILOT EXT VIS SCAN	8A	13		0	10 P2							10	
00EV35	PILOT EXT VIS SCAN	8A	13		0	10 P3							10	
00EV36	PILOT EXT VIS SCAN	8A	13		0	10 P4							10	
00EV37	PILOT EXT VIS SCAN	8A	14		0	10 P1							10	
00EV38	PILOT EXT VIS SCAN	8A	14		0	10 P2							10	
00EV39	PILOT EXT VIS SCAN	8A	14		0	10 P3							10	
00EV40	PILOT EXT VIS SCAN	8A	14		0	10 P4							10	
00EV41	TDZ VIS LAND SCAN	8A	15		0	10 P1							10	
00EV42	TDZ VIS LAND SCAN	8A	15		0	10 P2							10	
00EV43	TDZ VIS LAND SCAN	8A	15		0	10 P3							10	
SYD132	CROSS WPT DD132					10							10	
SYD133	CROSS WPT DD133					10							10	
SYD134	CROSS WPT DD134					10							10	
SYD135	CROSS WPT DD135					10							10	
	BEGIN 3 DEG DESCENT					10							10	
SYA131	CROSS WPT AC131					10							10	
SYA132	CROSS WPT AC132					10							10	
SYSFAF	CROSS FINAL FIX					10							10	
010001	COCKPIT SAFETY	4C	22		0	10 P1	7B	84		2.18			10	P1
	INSPECTION	7B	57		3.08	10 P2	7B	53		5.16			10	P1
		7B	52		7.22	10 P1	7A	29		12			10	P1
		4D	47		14	10 P1	4D	05		15			10	P2
		4D	09		15.54	10 P3	6A	17		18			10	P1
		4E	16		20.17	10 P1	7P	48		22.67			10	P1
		7P	49		23.57	10 P1	7P	09		25.19			10	P2
		7P	05		25.73	10 P2	7P	08		26.27			10	P2
		7P	50		26.81	10 P2	7P	10		27.35			10	P1
		7P	46		27.89	10 P1	7P	15		28.43			10	P2
		7P	21		31.08	10 P2	7P	22		31.62			10	P2
		7P	52		32.16	10 P1	7P	40		32.66			10	P1
		7P	11		35	10 P1	7P	12		36.63			10	P1
		7L	19		40	10 P1	7L	13		50			10	P1
		7B	24		55	10 P1	7B	34		56			10	P1
		7B	44		57.98	10 P2	7B	25		58			10	P1
		8D	01	1	5	10 P1	7H	19	1	15			10	P1
		8D	02	1	23	10 P1	7H	20	1	30			10	P1
		7B	85	1	35	10 P1	7B	86	1	40			10	P2
		3F	03	1	45	10 P2	3F	02		145.69			10	P1
		4A	41	1	50	10 P2	4A	43		152.16			10	P2
		4A	38		152.48	10 P1	4A	61		153.48			10	P1
		4A	40		155.49	10 P2	7H	06	2	0			10	P1
		7H	21		203.50	10 P1	7K	11	2	7			10	P1
		8D	03	2	10	10 P1							10	

010002	PILOT SEATED	8C	03	0	10	P1				10	
010003	CO-PILOT SEATED	8C	03	0	10	CP1	8C	02	3	10	CP1
		4A	46	17	10	CP1				10	
010004	BEFORE START PROC -1	8B	010001	0	10	P1	8B	08	20	10	P1
	-LIGHTS/SEATS/PEDAL	7G	31	25	10	P2	7G	46	25	10	P1
		8C	02	40	10	P1				10	
		4A	46	53	10	P1				10	
010005	BEFORE START PROC -2	7H	17	0	10	P1	7H	14	5	10	P1
	-OXYGEN SYS	7H	11	6.4	10	P1	7H	22	7.8	10	P1
		7H	10	11.80	10	P1	7H	23	13.2	10	P1
		7H	13	17.2	10	P1	7H	12	18.6	10	P1
		7H	24	20.1	10	P1	7H	11	25	10	P1
		7H	24	26.4	10	P1	7H	12	30.4	10	P1
		7H	08	32	10	P1	7H	25	33.3	10	P1
		7H	09	37.3	10	P1	1A	22	42	10	P2
		1F	06	44.35	10	P3	7H	18	50	10	P1
		8D	04	55	10	P1	8E	01	57	10	P1
		8E	02	59	10	P1				10	
010007	BEFORE START PROC -3	4A	48	0	10	P1	4A	49	2.79	10	P1
	-FLIGHT CONTROL SYS	4A	50	4.81	10	P1	4A	51	6.85	10	P1
		4A	52	8.89	10	P1	4A	53	10.91	10	P1
010008	BEFORE START PROC -4	7C	67	0	10	P1	7C	68	1.14	10	P1
	-FUEL SYS	7C	49	1.97	10	P1	7C	57	2.52	10	P1
		7C	69	3.07	10	P1	7C	13	3.88	10	P1
		7C	24	4.43	10	P1	7C	26	5.88	10	P1
		7C	30	7.33	10	P1	7C	34	8.78	10	P1
		7C	38	10.23	10	P1	7C	42	11.68	10	P1
010009	BEFORE START PROC -5	7B	57	0	10	P2	7B	67	2.18	10	P2
	-ELECTRICAL SYS	7B	70	4.36	10	P1	7B	17	4.92	10	P2
		7B	88	6.88	10	P1	7B	89	8.21	10	P1
		7B	90	9.01	10	P1	7B	91	10.40	10	P1
010010	BEFORE START PROC -6	7G	07	0	10	P3	7G	09	2.73	10	P2
	-LIGHTS	7B	92	4.23	10	P1	7G	35	5.58	10	P1
		7G	38	7.48	10	P1	7G	02	8.02	10	P1
		7G	05	9.82	10	P1	7K	10	11.53	10	P1
010011	BEFORE START PROC -7	7K	07	0	10	P1	7K	11	4.22	10	P1
	-ANTI-ICE / HEAT	7J	24	5.36	10	P3	7J	26	6.78	10	P3
		7J	09	8.20	10	P4	7J	11	9.70	10	P4
		7J	05	11.20	10	P2	7J	07	11.73	10	P2
		7J	13	12.26	10	P1	7J	15	12.80	10	P1
		7J	17	13.34	10	P1	7J	19	13.34	10	P1
010012	BEFORE START PROC -8	7A	01	0	10	P4	7A	03	1.46	10	P2
	-HYDRAULIC SYS	7A	09	2.92	10	P1	7A	11	3.47	10	P1
		7A	05	4.02	10	P3	7A	07	5.48	10	P3
		7A	12	6.94	10	P1	7A	14	7.49	10	P1
		7A	19	8.04	10	P1	7A	20	10.28	10	P2
		7A	21	12.52	10	P1				10	
010013	BEFORE START PROC -9	7E	01	0	10	P1	7E	02	1.27	10	P2
	-PRESSURIZATION/AIR-	7D	41	3.32	10	P2	7D	43	6.53	10	P1
	CONDITIONING	7D	50	9.22	10	P3	7D	54	11.34	10	P3
		7D	02	15	10	P2	7D	01	17.70	10	P1
		7D	05	20	10	P3	7D	19	21.52	10	P2
		7D	63	23.04	10	P1	7D	64	24.39	10	P1
		7D	65	25.70	10	P1	7D	66	26.47	10	P1
		7E	05	30	10	P1	7E	06	32.50	10	P1
		7E	07	33	10	P2	7E	08	33.93	10	P1
		7E	11	36	10	P2	7E	09	39	10	P2
		7E	10	40.62	10	P1	7E	16	42	10	P2
		7E	18	44.69	10	P2				10	
010014	BEFORE START PROC-10	7G	24	0	10	P2	7M	12	1.5	10	P2

	-LIGHTS/ENG START/	7M	13	3.5	10	P2	3R	47	5	10	P1
	FLIGHT DIREC	3R	48	6.5	10	P2	3V	19	7.48	10	P1
010015	BEFORE START PROC-11	5K	01	0	10	P1	5K	02	3.5	10	P1
	-COMPASS/ADF/RMI/CI	5K	03	5	10	P2	1P	010001	5	10	P1
		1P	06	5	10	CP1	1P	03	7.5	10	CP1
		5D	23	6.75	10	P1	5E	21	9	10	CP1
		5G	03	8.98	10	P1	5H	01	11.26	10	CP1
		3S	14	11.23	10	P2	3S	14	13.59	10	CP2
010016	BEFORE START PROC-12	1P	010002	0	10	CP1	1P	06	0	10	P1
	-ALTIMETER	1P	03	2.5	10	P1	3H	03	3	10	P2
		3H	04	3.28	10	P2	3H	03	3.5	10	CP3
		3H	04	3.78	10	CP2	3H	04	7	10	CP1
		3H	04	7.5	10	P1				10	
010017	BEFORE START PROC-13	3L	01	0	10	P3	3L	01	0	10	CP3
	-VSI/MACH AIRSPEED	1P	010003	2.31	10	CP1	1P	06	2.31	10	P2
		1P	03	8.31	10	P1	3A	02	8.81	10	P3
		3A	02	8.81	10	CP1	3A	05	11.38	10	P3
		3A	05	11.38	10	CP2	3A	04	13.95	10	P1
		3A	04	13.95	10	CP1	3A	07	16.52	10	P3
		3A	07	16.52	10	CP3				10	
010018	BEFORE START PROC-14	3N	02	0	10	P3	3N	01	2.24	10	P1
	-CLOCKS/STDBY HOR	3N	02	0	10	CP3	3N	01	2.24	10	CP2
		3R	49	5	10	P1	3P	01	8	10	P1
		3P	04	10.7	10	P1				10	
010019	BEFORE START PROC-15	7C	72	0	10	P3	7C	09	.1	10	P1
	-FUEL QTY TEST	7C	10	2.12	10	P1	7C	11	4.14	10	P1
010020	BEFORE START PROC-16	1P	010004	0	10	P1	1P	02	0	10	CP1
	-EPR/OIL QTY/VIBR	8B	04	1.5	10	CP1	1P	010005	3.5	10	CP1
		1P	06	3.5	10	CP1	1P	03	6	10	P1
		7F	25	6.5	10	P1	7F	26	9.03	10	P3
		7F	27	9.33	10	P1	7F	30	11.33	10	P2
		7F	28	13.35	10	P3	7F	29	13.65	10	P1
		7F	04	17	10	P4	7F	11	17.2	10	P1
		7F	19	19.25	10	P1	7F	01	23	10	P1
		7F	03	24.91	10	P3	7F	12	26.35	10	P3
		7F	20	28.37	10	P3	7F	02	30.39	10	P1
		7F	03	32.30	10	P3	7F	12	33.74	10	P3
		7F	20	35.76	10	P3				10	
010021	BEFORE START PROC-17	4D	48	0	10	P1	4D	38	1.04	10	P1
	-ANTI-SKID/ANTI-BRK	4D	49	1.58	10	P1	4D	40	2.66	10	P1
010022	BEFORE START PROC-18	6A	10	0	10	P2	1N	02	2.38	10	P2
	-CENTER STAND ITEMS	4F	12	4.31	10	P1	4C	23	6.31	10	P1
		4B	04	7.51	10	P1	7M	14	10.05	10	P2
		4D	50	10.83	10	P1	4G	15	11.80	10	P1
010023					10					10	
010024					10					10	
010025					10					10	
010026					10					10	
010027					10					10	
010028					10					10	
010029					10					10	
010030	BEFORE START PROC-2C	7H	17	0	10	CP1	7H	14	5	10	CP1
	-OXYGEN SYS	7H	11	6.4	10	CP1	7H	22	7.8	10	CP1
		7H	10	11.8	10	CP1	7H	23	13.2	10	CP1
		7H	13	17.2	10	CP1	7H	12	18.6	10	CP1
		7H	24	20.1	10	CP1	7H	11	25	10	CP1
		7H	24	26.4	10	CP1	7H	12	30.4	10	CP1
		7H	08	32	10	CP1	7H	25	33.3	10	CP1
		7H	09	37.3	10	CP1	1B	23	42	10	CP2
		1F	06	44.35	10	CP1	7H	18	50	10	CP1

		8D	04	1	0	10CP1	8E	01	1	2	10CP1
		8E	02	1	8	10CP1					10
010031	DETERMINE EPR, V1,	8B010004			0	10CP1	8B010006			3	10CP1
	AND V-REF BUG SET	8B	01		33	10CP2	8B010007			35	10CP1
	VALUES	8B	01	1	5	10CP2	8B010005		1	7	10CP1
010032	TUNE COMM RADIOS	8B010002			0	10CP1					10
010033	SET VHF-1L TO	1A	01		0	10CP3	1A	02		0	10CP2
	CLEARANCE DELIVERY	1A	03		2.98	10CP1	1A	05		5	10CP2
	121.65 AND REQUEST	1A	17		6.43	10CP2	1A	19		8.43	10CP4
	CLEARANCE	1A	24		10	10CP1	1A	11		11.42	10CP1
		1P010055			11.42	10CP1	1A	14		18	10CP1
		1P010056			18	10CP1	1P010057			22.26	10CP1
		1P010058			27.94	10CP1	1P010059			33.62	10CP1
		8B	01		24	10CP1	1A	24		37	10CP2
		1A	11		38.42	10CP2	1P010060			38.42	10CP1
		1P010061			42.08	10CP1	1P010073			46.96	10CP1
		1A	14		49.4	10CP2	1P010062			49.4	10CP1
		1P010063			52.9	10CP1	8B	01		51	10CP2
		1A	24		56	10CP3	1A	11		57.42	10CP1
		1P010064			57.42	10CP1					10
010034	SET VHF-2R TO ATIS	1B	07		0	10CP3	1B	08		0	10CP2
	-111.1	1B	09		2.88	10CP1	1B	06		4.86	10CP1
		1B	11		6.31	10CP2	1B	04		8	10CP1
		1B	18		6.31	10CP1	1P010065			6.31	10CP1
		1P010066			10.39	10CP1	1P010067			15.83	10CP1
		1P010068			21.27	10CP1	1P010069			26.71	10CP1
		1P010074			32.15	10CP1	8B	01		11	10CP1
		1B	12		37	10CP4					10
010035	SET XPNDR CODE TO	1N	06		0	10CP3	1N	05		0	10CP1
	2213	1N	08		2.80	10CP1	1N	06		5.41	10CP1
		1N	18		5.41	10CP1					10
010036	SET RADAR	6A	02		0	10CP2	6A	14		2.66	10CP1
		6A	01		5.03	10CP1	6A	09		9.14	10CP1
010037	SET VHF-1R TO GROUND	8B010002			0	10CP1	1A	07		5	10CP3
	CONTROL -121.9	1A	08		5	10CP2	1A	09		7.98	10CP1
010038	SET VHF-2L TO					10					10
	ATLANTA TOWER-119.5	1B	01		0	10CP2	1B	02		0	10CP2
		1B	03		2.9	10CP1					10
010039	SET NAV-1 TO ATLANTA	8B010002			0	10CP1	5U	01		5	10CP3
	VOR -115.6	5U	02		5	10CP3	5U	03		8	10CP2
		5U	11		11	10CP2	5U	12		13	10CP2
010040	SET NAV-2 TO SPAR-	5V	01		0	10CP3	5V	02		0	10CP2
	TANBURG VOR -115.7	5V	03		2.93	10CP1	5V	11		5	10CP1
		5V	12		7.5	10CP2					10
010041	SET ADF-1 TO LAKE-	8B010002			0	10CP1	5D	19		5	10CP3
	SIDE LOM	5D	02		8	10CP3	5D	01		8	10CP2
010042	BEFORE START PROC-19	7G	14		0	10 P1	4G	07		5	10 P1
	-LITES/TRIM/PAPERS	4G	01		10	10 P1	4G	02		15	10 P3
		8B010003			20	10 P1					10
010043						10					10
010044						10					10
010045						10					10
010046						10					10
010047						10					10
010048						10					10
010049						10					10
010050	BEFORE START CHECK-	1P010006			0	10 P1	1P	02		0	10CP2
	LIST - 1	1P	03		2	10CP1	8B	02		3	10CP3
		8B	05		9	10CP2	8B	02		14	10CP1
		1P010007			16	10CP1	1P	02		16	10 P1

		1P010008	19	10 P1	1P	06	19	10CP3
		8B 03	22	10CP1	1P010009		24	10CP1
		1P 02	24	10 P4	1P010010		26	10 P1
		1P 06	26	10 P3	8B	03	27	10CP1
		1P010011	29	10CP1	1P	02	29	10 P4
		1P010012	30	10 P1	1P	06	30	10CP3
010051	BEFORE START CHECK-LIST - 2	8B 03	0	10CP1	1P010013		2	10CP1
		1P 10	2	10 P1	4A	54	3	10 P1
		1P010014	4.21	10 P1	1P	06	4.21	10CP4
		8B 03	5	10CP2	1P010015		7	10CP1
		1P 06	7	10 P4	7C	09	7.5	10 P2
		7C 10	9.77	10 P1	7C	11	11.79	10 P1
		7C 70	13.89	10 P1	1P010016		15.48	10 P1
		1P 07	15.48	10CP1	8B	03	20	10CP1
		1P010017	22	10CP1	1P	10	22	10 P2
		7B 93	22.7	10 P1	1P010014		24.5	10 P1
		1P 06	24.5	10CP4	8B	03	25	10CP1
		1P010018	27	10CP1	1P	10	27	10 P3
		7G 38	28.2	10 P1	1P010019		29	10 P1
		1P 10	29	10CP4	8B	03	30	10CP1
		1P010020	32	10CP1	1P	02	32	10 P2
		7G 48	34	10 P1	1P010021		35.27	10 P1
		1P 06	35.27	10CP4				10
010052	BEFORE START CHECK-LIST - 3	8B 03	U	10CP1	1P010022		2	10CP1
		1P 10	2	10 P1	7A	32	3	10 P1
		1P010026	5	10 P1	1P	07	5	10CP2
		8B 03	6	10CP1	1P010023		8	10CP1
		1P 02	8	10 P2	7D	67	10	10 P1
		7D 63	11.35	10 P1	7D	64	12.7	10 P1
		7D 05	14.01	10 P1	7D	66	14.78	10 P1
		1P010024	15.55	10 P1	1P	07	15.55	10CP3
		8B 03	18	10CP1	1P010025		20	10CP1
		1P 11	20	10 P1	4H	04	20.5	10 P1
		1P010027	22	10 P1	1P	07	22	10CP4
		8B 03	23	10CP1	1P010028		25	10CP1
		1P 11	25	10 P2	1P010029		26	10 P1
		1P 06	26	10CP3	8B	03	27	10CP1
		1P010030	29	10CP1	1P	11	29	10 P3
		4D 38	30	10 P1	1P010014		31	10 P1
		1P 06	31	10CP4	8B	03	32	10CP1
		1P010031	34	10CP1	1P	11	34	10 P3
		4D 49	35	10 P1	1P010032		30.5	10 P1
		1P 06	36.5	10CP4				10
010053	BEFORE START CHECK-LIST - 4	8B 03	0	10CP1	1P010033		2	10CP1
		1P 02	2	10 P2	1P010034		4	10CP1
		1P 10	4	10 P3	8B	03	5.5	10CP1
		1P010035	7.5	10CP1	1P	11	7.5	10 P2
		4F 12	9	10 P1	1P010036		11	10 P1
		1P 06	11	10CP3	8B	03	12	10CP1
		1P010037	14	10CP1	1P	10	14	10 P2
		4D 27	14.7	10 P1	1P010038		18	10 P1
		1P 06	18	10CP4	8B	03	18.5	10CP1
		1P010039	19.5	10CP1	1P	11	19.5	10 P4
		4G 08	21.2	10 P2	4G	10	22.45	10 P2
		1P010026	24	10 P1	1P	07	24	10CP2
		8B 03	25	10CP1	1P010040		27	10CP1
		1P 02	27	10 P2	7P	14	29	10 P1
		1P010010	30.5	10 P1	1P	06	30.5	10CP3
010054	BEFORE START CHECK-LIST - 5	8B 03	0	10CP1	1P010041		2	10CP1
		1P 02	2	10 P1	1P010042		3.5	10 P1

		1P	07	3.5	10CP2	8B	03	4.5	10CP2
		1P010043		7	10CP1	1P	11	7	10 P2
		1P010044		8	10CP1	1P	07	8	10 P2
		8B	03	9	10CP1	1P010045		11	10CP1
		1P	02	11	10 P1	1P010038		13.5	10CP1
		1P	06	13.5	10 P4				10
010055	BEFORE START CHECK-LIST - 6	1P010052		0	10 P1	1P	11	0	10CP4
		8B	03	2	10CP1	1P010046		4	10CP1
		1P	02	4	10 P4	7D	06	5.3	10 P3
		7D	20	7.95	10 P2	1P010047		10	10 P1
		1P	08	10	10CP1	8B	03	11	10CP1
		1P010048		13	10CP1	1P	11	13	10 P3
		7D	01	14	10 P1	1P010049		16.5	10 P1
		1P	08	16.5	10CP2	8B	03	18.2	10CP1
		1P010050		20.2	10CP1	1P	10	20.2	10 P3
		7G	25	22	10 P1	1P010014		24.5	10 P1
		1P	06	24.5	10CP4	8B	03	25	10CP1
		1P010051		27	10CP1	1P	11	27	10 P4
		8B	08	29	10CP1				10
010056	CONTACT GROUND CONTROL FOR PUSHBACK CLEARANCE	1A	06	0	10 P3	1A	25	2.3	10 P1
		1A	11	2.3	10 P4	1P010070		2.3	10 P1
		1P010071		6.3	10 P1	1A	14	11	10 *2
		1P010072		11	10 *1	1P010075		15.5	10 *1
		1A	25	18	10 P2	1A	11	18	10 P3
		1P010064		18	10 P1				10
010057	PUSHBACK PROCEDURE-1	1F	07	0	10 P1	1F	06	2.44	10 P3
		1H	01	4.43	10 P1	1A	20	10	10 P2
		1F	11	10	10 P1	1P010053		10	10 P1
		1F	09	12	10 P1	1P010054		12	10 P1
		7A	02	13	10 P4	7A	04	15.75	10 P3
		4D	52	17.5	10 P1	8A	03	17.5	10 P4
010058	AIRCRAFT PUSHED BACK FROM GATE				10				10
					10				10
010059	AIRCRAFT STOPPED ON RAMP				10				10
					10				10
010060	PUSHBACK PROCEDURE-2	4D	28	0	10 P1				10
010061	TOWBAR DISCONNECTED AND TUG DRIVEN AWAY				10				10
					10				10
010062	PUSHBACK PROCEDURE-3	1P030001		0	10 *1	1F	09	0	10 P2
020001	BEFORE START PROC-1A -LITES/SEATS/PEDALS	4A	70	0	10 P1				10
					10				10
020002	BEFORE START PROC - 10A -LITES/ENG STRT	7G	24	0	10 P2	7M	12	1.5	10 P2
		7M	13	3.5	10 P2				10
020003	BEFORE START PROC - 10B -EADI	2J	23	0	10 P1	2J	24	2.27	10 P1
		2J	26	4.54	10 P2	2J	32	5.87	10 P2
020004	BEFORE START PROC - 10C -MFD - CAPT.	2K	03	0	10 P1	2K	04	2.64	10 P1
		2K	02	5.64	10 P2	2K	07	7.61	10 P2
		2K	18	9.53	10 P1	2K	19	11.6	10 P3
		2K	25	12.98	10 P1				10
020005	BEFORE START PROC - 10D -AGCS	2H	52	0	10 P1	2H	53	0	10 P1
		2H	54	2	10 P1	2H	53	2	10 P1
		2H	02	4	10 P1	2H	09	5.05	10 P1
020006	BEFORE START PROC - 15A -FUEL QTY/V-REF	8B020001		0	10 P1	8B020002		3	10 P1
		7C	02	6	10 P1	7C	03	6	10 P1
		7C	07	10	10 P1	7C	01	11.8	10 P1
		8B020003		14.1	10 P1				10
020007	BEFORE START PROC - 18A -CRTS	2J	36	0	10 P1	2J	37	2	10 P1
		2K	54	4	10 P1	2K	55	6	10 P1
		2L	02	8	10 P1				10
020008	CO-PILOT SEATED	8C	03	0	10CP1	8C	02	3	10CP1

		4A	46	13	10CP1	4A	70	16	10CP1
		8E	03	19	10CP1				10
020009	SET VHF-1L TO	1Q	01	0	10CP4	1Q	02	0	10CP2
	CLEARANCE DELEVERY	1Q	03	3	10CP2	1Q	05	4.97	10CP2
	-121.65	1Q	12	6.42	10CP2	1Q	11	8.76	10CP2
		1Q	14	11.56	10CP3	1Q	15	11.56	10CP1
		1P010055		11.56	10CP1	1Q	16	18	10CP1
		1P020001		18	10CP1	1P020002		22	10CP1
		1P020003		26	10CP1	1Q	14	30	10CP4
		1Q	15	30	10CP2	1P020004		30	10CP1
		1P020005		34	10CP1	1P020006		38	10CP1
		1Q	16	43	10CP2	1P010002		43	10CP1
		1P010063		46.5	10CP1	1Q	23	50	10CP1
		1Q	15	50	10CP3	1P010064		50	10CP1
020010	SET VHF-2R TO ATIS	1R	07	0	10CP3	1R	08	0	10CP4
	-111.1	1R	09	2.9	10CP2	1R	12	4.48	10CP2
		1R	06	5.91	10CP2	1R	04	7.38	10CP3
		1R	35	30	10CP3	1P010065		8.96	10CP1
		1P010066		13.04	10CP1	1P010067		18.48	10CP1
		1P010068		23.92	10CP1	1P010069		29.36	10CP1
		1P010074		34.80	10CP1	8B	01	11	10CP1
		1R	13	39	10CP2				10
020011	SET VHF-1R TO GROUND	8B010002		0	10CP1	1Q	07	5	10CP3
	CONTROL -121.9	1Q	08	5	10CP4	1Q	09	7.9	10CP2
020012	SET VHF-2L TO	1Q	01	0	10CP4	1Q	02	0	10CP2
	ATLANTA TOWER-119.5	1Q	03	3	10CP2				10
020013	SET NAV-1 TO ATLANTA	8B010002		0	10CP1	5W	01	5	10CP3
	VOR -115.6	5W	02	5	10CP2	5W	03	7.37	10CP2
		5W	05	9	10CP2				10
020014	SET NAV-2 TO ATLANTA	5X	01	0	10CP3	5X	02	0	10CP2
	VOR -115.6	5X	03	2.95	10CP2	5X	05	4.6	10CP2
020015	SET NAV-3 TO AUGUSTA	8B010002		0	10CP1	5Y	01	5	10CP3
	VOR -113.9	5Y	02	5	10CP1	5Y	03	8.12	10CP2
		5Y	05	9.8	10CP1				10
020016	SET CRTS	2J	36	0	10CP1	2J	37	2	10CP1
		2K	54	4	10CP1	2K	55	6	10CP1
		2L	02	8	10CP1				10
020017	NCDU TEST	2L	01	0	10CP1	2L	09	2.67	10CP1
		2L	01	7.67	10CP1				10
020018	SYSTEM STATUS CHECK	2L	68	0	10CP3	2L	16	1.46	10CP3
020019	PRE-FLIGHT FLIGHT				10				10
	PLAN INITIALIZATION				10				10
	PROCEDURE				10				10
020020	MFD SET-UP	2K	02	0	10CP4	2K	18	2.67	10CP4
		2K	19	4.05	10CP1	2K	21	5.43	10CP3
		2K	22	6.81	10CP2	2K	07	8.14	10CP3
020021	INITIALIZE PAGE -	2L	63	0	10CP1	2L	19	1.48	10CP1
	TIME OF DAY INPUT	3N	02	3.82	10CP3	2L	28	6.06	10CP1
		2L	20	15.51	10CP2				10
020022	TIME OF DAY-08:15:45	2L	35	7.41	10CP1	2L	33	8.76	10CP2
		2L	26	10.11	10CP3	2L	30	11.46	10CP1
		2L	29	12.81	10CP1	2L	30	14.16	10CP1
020023	INITIALIZE PAGE -	2L	19	0	10CP1	2L	26	2.34	10CP1
	ORIGIN INPUT	2L	07	9.41	10CP2	2L	20	11.46	10CP1
020024	ORIGIN NAME - KATL	2L	47	3.79	10CP1	2L	37	5.14	10CP2
		2L	56	6.6	10CP2	2L	48	8.06	10CP1
020025	INITIALIZE PAGE -	2L	19	0	10CP2	2L	27	2.08	10CP2
	DESTINATION INPUT	2L	07	9.13	10CP2	2L	20	11.20	10CP3
020026	DESTINATION NAME-	2L	47	3.56	10CP1	2L	40	4.88	10CP1
	KDCA	2L	39	6.23	10CP1	2L	37	7.68	10CP1

020027	INITIALIZE PAGE-	2L	19	0	10CP2	3H	04	2.08	10CP2
	BAROMETER VALUE	2L	29	4.45	10CP2	2L	07	12.66	10CP2
	INPUT	2L	20	4.74	10CP3				10
020028	BAROMETER VALUE -	2L	27	5.91	10CP1	2L	34	7.26	10CP1
	29.86	2L	36	8.61	10CP1	2L	33	9.96	10CP2
		2L	31	11.31	10CP1				10
020029	REVIEW NEW DATA ON	2L	07	0	10CP3				10
	INITIALIZE PAGE FOR				10				10
	ACCURACY				10				10
020030	SELECT ATC CLEARANCE	2L	64	0	10CP1	2L	08	2.03	10CP2
	PAGE				10				10
020031	ATC CLEARANCE PAGE-	2L	51	0	10CP2	2L	08	8.35	10CP1
	SID INPUT	2K	14	10.69	10CP1	2L	20	12.96	10CP3
020032	SID NAME - SOC9L	2L	55	1.46	10CP1	2L	51	2.81	10CP1
		2L	39	4.16	10CP1	2L	34	5.54	10CP1
		2L	48	6.89	10CP2				10
020033	DETERMINE NAME OF	2K	14	0	10CP1				10
	EXIT WAYPOINT ON				10				10
	SID SOC9L				10				10
020034	ATC CLEARANCE PAGE-	2L	37	0	10CP2	2L	08	6.96	10CP1
	WAYPOINT INPUT	2L	20	9.30	10CP3				10
020035	WAYPOINT NAME - SID3	2L	55	1.46	10CP1	2L	45	2.81	10CP2
		2L	40	4.16	10CP2	2L	28	5.48	10CP1
020036	ATC CLEARANCE PAGE-	2L	38	0	10CP2	2L	08	8.32	10CP1
	AIRWAY INPUT	2K	17	10.66	10CP1	2L	20	12.93	10CP3
020037	AIRWAY NAME - 816R	2L	33	1.48	10CP1	2L	26	2.92	10CP3
		2L	31	4.27	10CP1	2L	54	5.62	10CP1
020038	DETERMINE NAME OF	2K	17	0	10CP1				10
	ENTRANCE WPT ON STAR				10				10
	JASON01				10				10
020039	ATC CLEARANCE PAGE -	2L	52	0	10CP2	2L	08	7.08	10CP1
	STAR INPUT	2K	17	9.42	10CP1				10
020040	STAR NAME - WOOD	2L	59	1.46	10CP2	2L	51	2.92	10CP1
		2L	51	4.27	10CP1	2L	40	5.62	10CP3
020041	CHANGE MFD MAP	2K	10	0	10CP4				10
	SCALE TO 32 NM				10				10
020042	SELECT FLIGHT PLAN	2L	65	0	10CP1	2L	09	2.03	10CP2
	PAGE 2	2L	65	4.11	10CP3	2L	10	5.46	10CP2
020043	REVIEW PROVISIONAL	2L	09	0	10CP2	2K	17	2.08	10CP1
	FLIGHT PLAN DATA	2L	24	4.35	10CP2				10
020044	ACCEPT PROVISIONAL	2L	21	0	10CP4	2L	09	1.52	10CP2
	FLIGHT PLAN	2K	17	3.6	10CP1	1P020007		5.87	10CP1
		1P	17	5.87	10 P4				10
020045	BEFORE START CHECK-	8B	03	0	10CP1	1P020008		2	10CP1
	LIST - 5A	1P	10	2	10 P1	1P020009		3	10CP1
		1P	06	3	10 P3	8B	03	4	10CP1
		1P020010		6	10CP1	1P	10	6	10 P4
		1P020009		6.6	10CP1	1P	06	6.6	10 P3
		8B	03	7	10CP1	1P020011		9	10CP1
		1P	10	9	10 P1				10
		1P020009		10	10CP1	1P	06	10	10 P3
		8B	03	11	10CP1	1P020012		13	10CP1
		1P	10	13	10 P1	1P020013		14	10 P1
		1P	08	14	10CP3				10
020046	CONTACT GROUND CON-	1Q	06	0	10CP2	1Q	24	1.45	10CP1
	TROL FOR PUSHBACK	1Q	15	1.45	10CP4	1P010070		1.45	10CP1
	CLEARANCE	1P010071		5.45	10CP1	1Q	16	9	10 *3
		1P010072		9	10 *1	1P010075		13.50	10 *1
		1Q	24	15	10CP2	1Q	15	15	10CP3
		1P010064		15	10CP1				10

020047 WAYPOINT NAME - AGE1	2L	37	1.46	10CP1	2L	43	2.81	10CP2
	2L	41	4.27	10CP1	2L	26	5.62	10CP3
030001 ENGINE NO.2 START-UP	1A	25	0	10 P3	1P030002		2.35	10 P1
	1F	11	2.35	10 P2	1F	09	5	10 P2
	1P030001		5	10 P1	7M	05	7	10 P3
	7F	24	10.54	10 P3	7F	22	20.54	10 P2
	7M	09	23.06	10 P1	7F	17	25.57	10 P2
	7F	32	27.82	10 P1	7F	34	29.84	10 P1
	7M	15	31.63	10 P1	7F	24	34.15	10 P2
	7F	32	36.67	10 P1	7F	34	38.69	10 P1
	7F	30	40.71	10 P1	7F	22	42.95	10 P1
	7F	17	44.97	10 P1	1F	11	2.35	10CP2
	7F	24	12	10CP2	7F	22	16	10CP1
	7F	17	25	10CP1	7F	32	28	10CP1
	7F	34	31	10CP1	7F	24	35	10CP1
	7F	32	37.02	10CP1	7F	34	39.04	10CP1
	7F	30	41.06	10CP1	7F	22	43.30	10CP1
	7F	17	45.32	10CP1	7F	24	47.37	10CP1
	7F	32	49.39	10CP1	7F	34	51.41	10CP1
030002 ENGINE NO.1 START-UP	1A	25	0	10 P3	1F	11	1.45	10 P2
	1P030003		1.45	10 P1	1F	09	5	10 P2
	1P030001		5	10 P1	7M	02	7	10 P3
	7F	23	10.54	10 P3	7F	21	20.54	10 P2
	7M	07	23.06	10 P1	7F	09	25.57	10 P1
	7F	31	27.62	10 P1	7F	33	29.64	10 P1
	7M	16	31.66	10 P1	7F	23	32.96	10 P2
	7F	31	35.48	10 P1	7F	33	37.50	10 P1
	7F	25	39.52	10 P1	7F	21	41.76	10 P1
	7F	09	43.78	10 P1	7F	23	11	10CP3
	7F	21	21	10CP2	7F	09	23.52	10CP1
	7F	31	25.57	10CP1	7F	33	27.59	10CP1
	7F	23	29.61	10CP1	7F	32	31.63	10CP1
	7F	31	33.65	10CP1	7F	25	35.67	10CP1
	7F	21	37.91	10CP1	7F	09	39.93	10CP1
030003 AFTER START PROC.	7B	32	0	10 P1	7B	42	1.72	10 P1
	7B	31	3.44	10 P1	7B	41	4.03	10 P1
	7J	24	4.62	10 P1	7J	26	7.37	10 P2
	7J	28	8.79	10 P1	7J	30	9.92	10 P1
	7J	32	11.05	10 P1	7J	34	12.18	10 P1
	7J	36	13.32	10 P1	7J	38	14.46	10 P1
	7Q	10	15.6	10 P1	7Q	13	17.15	10 P2
	7Q	16	18.27	10 P1	7Q	19	19.39	10 P1
	7Q	22	20.59	10 P1	7Q	25	21.03	10 P1
	7Q	28	22.75	10 P1	7Q	31	23.87	10 P1
	7D	05	24.99	10 P4	7D	19	27.68	10 P2
	7D	18	29.2	10 P2	7D	34	30.73	10 P1
	7L	11	31.01	10 P3	7E	15	33.58	10 P3
	7M	03	36.64	10 P4	7M	06	38.38	10 P4
	7M	08	40.12	10 P1	7M	10	43.12	10 P2
030004 AFTER START CHECK-LIST - 1	1P030004		0	10 P1	1P	02	0	10CP1
	8B	02	1.5	10CP3	8B	03	7.4	10CP1
	1P030005		9.4	10CP1	1P	11	9.4	10 P2
	7B	31	10.2	10 P2	7B	41	11.12	10 P1
	1P030006		12	10 P1	1P	08	12	10CP3
	8B	03	13.5	10CP1	1P030007		15.5	10CP1
	1P	11	15.5	10 P3	7J	45	16.4	10 P1
	7J	46	17.87	10 P1	1P010014		19	10 P1
	1P	06	19	10CP4	8B	03	19.5	10CP1
	1P030008		21.50	10 P1	1P	11	21.5	10 P3
	1P030009		22.40	10 P1	1P	06	22.4	10CP3

030005	AFTER START CHECK-LIST - 2	8B	03		0	10CP1	1P030010		2	10CP1
		1P	10		2	10 P3	7D	10	3.6	10 P1
		7D	22		4.6	10 P1	7E	35	5.6	10 P1
		1P030011			6.3	10 P1	1P	09	6.3	10CP1
		8B	03		2.6	10CP1	1P030012		9.6	10CP1
		1P	11		9.6	10 P3	7M	11	10.5	10 P1
		1P030013			11.1	10 P1	1P	08	11.1	10CP4
030006	AFTER START CHECK-LIST - 3	8B	03		0	10CP1	1P030014		2	10CP1
		1P	11		2	10 P2	7L	20	3	10 P1
		1P030015			3.75	10 P1	1P	06	3.75	10CP4
		8B	03		4.25	10CP1	1P030016		6.25	10CP1
		1P	10		6.25	10 P1	7M	14	2.25	10 P1
		1P030017			8.55	10 P1	1P	06	8.55	10CP4
		8B	03		9.05	10CP1	1P030018		11.05	10CP1
		1P	12		11.05	10 P2	8B	08	12.45	10CP1
030007	ENGINE INSTRUMENT SCAN	7F	25		0	10CP4	7F	30	0	10CP3
		7F	21		.44	10CP3	7F	22	.44	10CP3
		7F	31		.88	10CP2	7F	32	.88	10CP2
		7F	23		1.32	10CP4	7F	24	1.32	10CP4
		7F	33		1.76	10CP2	7F	34	1.76	10CP2
		7F	09		2.2	10CP3				10
		7F	10		2.64	10CP4	7F	18	2.64	10CP4
		7F	11		3.08	10CP3	7F	19	3.08	10CP4
		7F	12		3.52	10CP4	7F	20	3.52	10CP4
040001	TAXI PROCEDURE - 1 -TAXI CLEARANCE	1A	20		0	10 P1	1A	12	0	10 P1
		1P040035			0	10 P1	1A	14	5	10 *3
		1P040036			5	10 *1	1P040037		8.5	10 *1
		1A	10		13	10 P2	1A	11	13	10 P1
		1P040038			13	10 P1	1P040039		16.75	10 P1
040002	TAXIPROCEDURE - 1 -TAXI FROM GATE TO TAXIWAY D	8A	02		0	10 P2	4D	52	0	10 P1
		4M	02		0	10 P3	4B	03	1	10 P4
		1P070011			5	10 P1	1P	10	5	10CP1
		4E	09		6	10CP3	4E	15	10	10CP3
		4E	16		13	10CP1	3V	18	20	10CP1
		3V	26		22.07	10CP1	7A	28	26	10CP1
		7A	33		28.28	10CP1	4A	21	30	10CP1
		4A	22		32	10CP1				10
		4M	01		15	10 P2	4A	58	15	10 P1
040003	TAXI PROCEDURE - 0 -TURN ONTO TAXIWAY D AND TAXI TO HOLD POINT SHORT OF RWY 08	8A	02		0	10 P3	4M	02	0	10 P4
		4B	03		10	10 P1				10
		4D	28	1	09	10 P2	4B	08	1 12	10 P1
						10				10
						10				10
040004	HOLD SHORT OF RWY 08 FOR DEPARTING AND ARRIVING TRAFFIC					10				10
						10				10
						10				10
040005	TAXI PROCEDURE - 4 -CROSS RWY 08 AND TAXI TO HOLD POINT AT TAXIWAY C JUNCTION	1A	14		0	10 P4	1P040001		0	10 *1
		1A	10		4	10 P3	1A	11	4	10 P3
		1P040003			4	10 P1	4D	52	8	10 P1
		4B	03		8	10 P2	8A	02	8	10 P3
		4M	03		8	10 P1	1A	15	30	10 *1
		1P040030			30	10 *1	1P040031		33	10 *1
		1A	11		35	10 P3	1P040003		35	10 P1
		4D	28		53	10 P2	4B	03	53	10 P1
040006	HOLD AT JUNCTION OF TAXIWAYS C AND D FOR TRAFFIC TO CLEAR					10				10
						10				10
						10				10
040007	TAXI PROCEDURE - 5 -TAXI FROM JUNCTION TO TAXIWAY L	4D	52		0	10 P1	4B	03	1	10 P2
		8A	04		0	10 P1	4N	03	4	10 P2
		1A	15		30	10 *2	1P040032		30	10 *1

			1P040032		33	10 *1	1A	25		35	10CP4
			1A	12		35	10CP2	1P040034		35	10CP1
			1B	11		40	10CP3	4D	28	1	44	10 P2
			4B	03	1	44	10 P2					10
040008	TAXI PROCEDURE - 6		4M	01		0	10 P4	8A	04		0	10 P2
	-TURN ONTO TAXIWAY L		4B	03		10	10 P2	4M	03		10	10 P3
	AND TAXI INTO RWY		4D	28	1	40	10 P2	4B	03	1	40	10 P2
	9L HOLD AREA		4M	01	1	40	10 P4	4D	27	1	50	10 P1
040010	TAXI PROCEDURE - 1A		1Q	24		0	10CP3	1Q	28		0	10CP1
	-TAXI CLEARANCE		1P040035			0	10CP1	1Q	16		4	10CP2
			1P040036			4	10CP1	1P040037			7.5	10CP1
			1Q	14		11	10CP3	1Q	15		11	10CP1
			1P040038			11	10CP1	1P040039			14.75	10CP1
040011	TAXI PROCEDURE - 4A		1Q	16		0	10CP4	1P040001			0	10CP1
			1Q	23		4	10CP1	1Q	15		4	10CP3
			1P040003			4	10CP1	4D	52		8	10 P1
			4B	03		8	10 P2	8A	02		8	10 P4
			4M	03		8	10 P1	1Q	30		30	10CP1
			1P040030			30	10CP1	1P040031			33	10CP1
			1Q	23		35	10CP1	1Q	15		35	10CP3
			1P040003			35	10CP1	4D	28		53	10 P2
			4B	03		53	10 P1					10
040012	TAXI PROCEDURE - 5A		4D	52		0	10 P1	4B	03		1	10 P2
			8A	04		0	10 P1	4M	03		4	10 P2
			1Q	30		30	10CP2	1P040032			30	10CP1
			1P040033			33	10CP1	1Q	24		35	10CP4
			1Q	28		35	10CP2	1P040034			35	10CP1
			1R	12		40	10CP2	4D	28	1	44	10 P2
			4B	03	1	44	10 P2					10
070001	BEFORE TAKEOFF		1P070012			0	10 P1	1P	02		0	10CP1
	CHECKLIST - 1		8B	02		1.5	10CP3	8B	03		8	10CP1
			1P070013			10	10 P1	1P	10		10	10 P1
			1P070014			11	10CP1	1P	07		11	10CP4
			8B	03		12	10CP1	1P070015			14	10 P1
			1P	10		14	10 P1	1P070014			15	10 P1
			1P	07		15	10CP4	8B	03		16	10CP1
			1P070016			18	10CP1	1P	10		18	10 P4
			4E	16		18.6	10CP1	4N	05		21.1	10CP2
			1P070017			22.5	10CP1	1P	06		22.5	10CP3
070002	BEFORE TAKEOFF		8B	03		0	10CP1	1P070018			2	10 P1
	CHECKLIST - 2		1P	10		2	10 P3	4G	03		3.2	10 P1
			1P070029			5.7	10CP1	1P	09		5.7	10CP2
			8B	03		7.1	10CP1	1P070019			9.1	10 P1
			1P	10		9.1	10 P1	1P070020			10.1	10CP1
			1P	07		10.1	10CP2	8B	03		11	10CP1
			1P070021			13	10CP1	1P	10		13	10 P1
			1P070022			14	10 P1	1P070023			18.5	10 P1
			1P	09		14	10CP3	1P070024			24	10CP1
070003	BEFORE TAKEOFF		8B	03		0	10CP1	1P070025			2	10CP1
	CHECKLIST - 3		1P	10		2	10 P1	1N	03		3.5	10CP1
			6A	11		5.43	10CP1	1P070026			7.8	10CP1
			1P	06		7.8	10 P4	8B	03		8.5	10CP1
			1P070027			9.5	10CP1	1P	02		9.5	10 P1
			7G	17		11	10 P1	1P070026			13.2	10 P1
			1P	06		13.2	10CP4	8B	03		14	10CP1
			1P030018			16	10CP1	1P	12		16	10 P3
			8B	08		17	10CP1					10
070004	CLEARED TO TAXI ONTO		1B	14		0	10CP1	1B	15		0	10CP1
	RUNWAY 9L		1P070005			0	10CP1	1P070006			3.6	10CP1
			1B	18		6	10 *2	1P070007			6	10 *1

		1B	14	9	10CP2	1B	15	9	10CP2
		1P070008		9	10CP1	4D	52	13	10 P1
		4B	03	14	10 P2	4M	01	14	10 P4
		4B	03	24	10 P1	4D	28	27	10 P1
		8A	08	10	10 P2				10
070005	RECEIVE TAKEOFF CLEARANCE	1B	18	0	10 P2	1P070009		0	10 *1
		1B	14	3	10 P2	1B	15	3	10 P3
		1P070010		3	10 P1				10
070006	TAKEOFF ROLL	8A	04	0	10 P4	4A	64	0	10 P1
		4M	03	0	10 P1				10
		4B	05	0	10 P1	7F	29	2	10 P2
		7F	34	2.76	10 P2	4B	06	5	10 P1
		7F	27	8	10CP2	7F	30	8	10CP3
		4B	07	10	10CP1	3A	01	12	10CP4
					10	3A	01	20	10 P1
		3A	09	20	10CP3	1P070001		20	10CP1
		1P	12	20	10 P4	3A	03	25	10CP4
		1P070002		27	10CP1	1P	11	27	10 P3
070007	ROTATION, TAKEOFF, AND GEAR UP	3A	01	0	10CP3	3A	03	0	10CP1
		1R070002		0	10CR1	3A	03	.9	10CR3
		1P070003		.9	10CP1	1P	04	0	10 P3
		4A	24	2.0	10 P2	3A	01	2.37	10CP4
		3A	10	2.6	10 P1	3L	02	3.2	10 P1
		3H	06	3.8	10 P2	3R	10	4.4	10 P4
		1P070034		4.5	10CP1	1P	12	4.5	10 P4
		1P070004		5.6	10 P1	1P	12	5.6	10CP4
		4D	01	6.0	10CP2	4D	07	12.0	10CP1
		4D	09	12.54	10CP1	1P070033		13.08	10CP1
		1P	12	13.08	10 P4	4D	02	13.08	10CP2
070003	SET HEADING BUGS TO 090 DEG AND COURSE BUGS TO 105 DEG	3S	11	0	10 P1	3S	12	5	10 P2
		3S	11	0	10CP1	3S	12	5	10CP2
					10				10
070009	SET EADI AND MFD FOR TAKEOFF	2K	01	0	10CP4	2K	25	2.67	10CP1
		2K	38	4.05	10CP3	2K	07	5.43	10CP3
		2J	32	9.66	10CP1	2J	15	11.81	10CP1
		2K	14	7.39	10CP1				10
070010	TAKEOFF ROLL - A	8A	04	0	10 P4	4B	05	0	10 P1
		7F	29	3	10 P2	7F	34	3	10 P2
		4B	06	5	10 P1	4A	64	0	10 P1
					10	3A	01	20	10 P1
		7F	27	8	10CP2	7F	30	8	10CP3
		4B	07	10	10CP1	3A	01	12	10CP4
		3A	09	20	10CP3	1P070001		20	10CP1
		1P	12	20	10 P4	3A	03	25	10CP4
		1P070002		27	10CP1	1P	11	27	10 P3
070011	ROTATION, FLARE, AND GEAR UP - A	3A	06	0	10CP4	1P070003		1	10CP1
		1P	11	1	10 P3	4A	24	2	10 P2
		3A	01	4	10 P2	3L	01	4	10 P4
		3L	01	10	10CP4	4D	01	10	10CP2
		4D	07	15	10CP2	4D	09	16	10CP2
070012	CLEARED TO TAXI ONTO RUNWAY 9L - A	1R	23	0	10CP2	1R	36	0	10CP1
		1P070005		0	10CP1	1P070006		36	10CP1
		1R	32	6	10CP1	1P070007		6	10CP1
		1R	23	9	10CP3	1R	36	9	10CP2
		1P070008		9	10CP1	4D	52	13	10 P1
		4B	03	14	10 P2	4M	01	14	10 P4
		4B	03	24	10 P1	4D	28	18.5	10 P1
		8A	04	10	10 P4				10
070013	WAIT FOR TAKEOFF CLEARANCE				10				10
					10				10

070014	RECEIVE TAKEOFF CLEARANCE	1R	32	0	10	P1	1P070009		0	10	P1
		1R	23	3	10	P4	1R	36	3	10	P3
		1P070010		3	10	P1				10	
070015	BEFORE TAKEOFF CHECKLIST - 3A	8B	03	0	10	CP1	1P070030		2	10	CP1
		1P	10	2	10	P2	1N	03	2.7	10	CP1
		1P070026		4.63	10	CP1	1P	06	4.63	10	P4
		8B	03	5.13	10	CP1	1P070031		7.13	10	CP1
		1P	12	2.13	10	P4	2H	02	8.23	10	P1
		1P070032		9.28	10	P1	1P	18	9.28	10	CP1
		8B	03	9	10	CP1	1P070027		11	10	CP1
		1P	02	11	10	P1	7G	17	12.5	10	P1
		1P070026		14.7	10	P1	1P	06	14.7	10	CP4
		8B	03	15.2	10	CP1	1P070027		17.2	10	CP1
		1P	12	17.2	10	P3	8B	08	17.2	10	CP1
090001	CONTACT DEPARTURE CONTROL 125.7	1B	18	0	10	*3	1P090001		0	10	*1
		1P090024		4.50	10	*1	1B	14	6	10	CP4
		1B	15	6	10	CP4	1P090002		6	10	CP1
		1B	07	8	10	CP3	1B	08	8	10	CP2
		1B	09	10.88	10	CP1	1B	06	13	10	CP1
		1B	13	14.5	10	CP3	1B	16	14.5	10	CP1
		1P090003		14.5	10	CP1	1B	18	18	10	*4
		1P090005		18	10	*1	1N	07	21.5	10	CP1
		1N	18	23.65	10	CP1	1B	19	28	10	*1
		1P090006		28	10	*1	1B	13	32	10	CP4
		1B	16	32	10	CP2	1P090007		32	10	CP1
090002	CONTROL AIRCRAFT - A (10 SEC PROC)	4A	64	0	10	P2	8A	05	0	10	P1
					10					10	
090003	FLIGHT INSTRUMENT SCAN - A	3R	10	0	10	P4	3L	02	0	10	P1
		3A	10	0	10	P1	3S	01	0	10	P2
090004	CROSS RWY 27R MIDDLE MARKER, TURN TO HDG 105	3V	13	0	10	P1	4A	28	0	10	P2
		3S	12	5	10	P2				10	
090005	COMPLETE TURN - ON HDG 105				10					10	
					10					10	
090006	RETRACT FLAPS TO FLAPS 1. SET CLIMB THRUST.	3A	01	0	10	P3	1P090022		2.37	10	P1
		1P	10	2.37	10	CP4	4E	07	3	10	CP1
		4E	15	5.69	10	CP3	4N	03	7.92	10	CP2
		4N	04	10	10	CP2	1P090063		11	10	CP1
		1P	07	11	10	P4	1B	03	12	10	CP1
		7F	25	15	10	P4	7F	30	15	10	P3
090007	REACH 3000 FT ABOVE GROUND LEVEL. BEGIN ACCELERATION TO 250 KIAS. MAINTAIN 500-1000 FT/MIN CLIMB	3H	02	0	10	P1	4B	03	2	10	P1
					10					10	
					10					10	
					10					10	
090008	CONTROL AIRCRAFT - B (5 SEC PROC)	4A	64	0	10	P3	8A	05	0	10	P2
					10					10	
090009	FLIGHT INSTRUMENT SCAN - B	3R	56	0	10	P1	3L	02	0	10	P2
		3A	10	0	10	P2	3S	01	0	10	P3
090010	RECEIVE INSTRUCTIONS TO TURN TO HDG 070 TO INTERCEPT J37	1B	19	0	10	*2	1P090025		0	10	*1
		1P090026		3	10	*1	1B	24	7	10	CP1
		1B	16	7	10	CP3	1P090027		7	10	CP1
		1P090028		11	10	CP1	4A	28	7	10	P3
		3S	12	7	10	P2				10	
090011	RETRACT FLAPS TO FLAPS 0.	1P090022		2.37	10	P1				10	
		1P	10	2.37	10	CP4	4E	06	3	10	CP3
		4E	15	5.69	10	CP3	4N	03	7.92	10	CP2
		4N	04	10	10	CP2	1P090064		11	10	CP1
		1P	07	11	10	P4	1P	03	12	10	P1
		7F	25	13	10	P4	7F	30	13	10	P3

090012	COMPLETE TURN - ON				10				10
	HDG 070				10				10
090013	REACH 250 KIAS				10				10
090014	AFTER TAKEOFF CHECK-	1P090017		0	10 P1	1P	10	0	10CP2
	LIST	8B090001		1.2	10CP1	1P090018		3.2	10 P1
		7M	12	4.1	10CP1	7M	13	6.51	10CP2
		1P090019		7.29	10CP1	1P	06	7.29	10 P4
		8B090001		8	10CP1	1P090020		10	10CP1
		1P	11	10	10 P3	4D	08	11	10CP2
		4D	11	11.72	10CP1	1P090021		12.5	10CP1
		1P	06	12.5	10 P3	8B090001		13.5	10CP1
		1P090022		15.5	10CP1	1P	10	15.5	10 P4
		1P090021		16.5	10CP1	1P	06	16.5	10 P3
		8B090001		18	10CP1	1P090023		20	10CP1
		1P	09	20	10 P4				10
090015	RECEIVE CLEARANCE TO	1B	18	0	10 *4	1P090029		0	10 *1
	CLIMB TO 12000 FT	1B	24	4	10CP2	1B	16	4	10CP4
		1P090030		4	10CP1	1P	04	4	10 P1
090016	CONTROL AIRCRAFT - C	4A	64	0	10 P4	8A	05	0	10 P3
	(SEC PROC)				10				10
090017	FLIGHT INSTRUMENT	3R	56	0	10 P2	3L	02	0	10 P3
	SCAN - C	3A	10	0	10 P3	3S	01	0	10 P4
090018	CONTROL AIRCRAFT - D	4A	65	0	10 P1	8A	05	0	10 P4
	(60 SEC PROC)				10				10
090019	FLIGHT INSTRUMENT	3R	56	0	10 P3	3L	02	0	10 P4
	SCAN - D	3A	10	0	10 P4	3S	15	0	10 P1
090020	REACH 10000FT.	3S	01	0	10 P2	4A	28	0	10 P4
	BEGIN TURN TO HDG	8A	08	0	10 P4				10
	053.				10				10
090021	SET CI COURSE CURSOR	3S	12	0	10 2				10
	TO 053 DEG.				10				10
090022	TURN COMPLETED - ON	4B	03	0	10 P2	7F	25	0	10 P2
	HDG 053. BEGIN	7F	30	2	10 P3	3A	01	2	10 P1
	ACCELERATION TO 280				10				10
	KIAS				10				10
090023	HANDOFF TO ATLANTA	1B	19	0	10 *3	1P090008		0	10 *1
	EAST DEPARTURE SEC-	1P090009		3.1	10 *1	1B	26	7	10CP1
	TOR. -123.95	1B	17	7	10CP1	1P090010		7	10CP1
		1P090011		10.5	10CP1	1B	01	15	10CP2
		1B	02	15	10CP2	1D	03	17.9	10CP1
		1B	28	21	10CP1	1B	17	21	10CP2
		1P090012		21	10CP1	1P090013		25.50	10CP1
		1B	18	28	10 *4	1P090014		28	10 *1
		1N	07	32	10CP1	1B	18	36	10 *4
		1P090015		36	10 *1	1B	24	40	10CP4
		1B	16	40	10CP1	1P090016		40	10CP1
090024	TUNE COMPANY AND	1A	01	0	10CP3	1A	02	0	10CP2
	EMERGENCY FREQS	1A	03	2.98	10CP1	1A	07	6	10CP4
		1A	08	6	10CP3	1A	09	8.01	10CP1
090025	RECEIVE NOTICE OF	1B	19	0	10 *4	1P090031		0	10 *1
	CONFLICTING TRAFFIC	1P090032		3.75	10 *1	1P090033		8.75	10 *1
					10	8A	03	10	10CP1
		1B	25	12	10CP1	1B	17	12	10CP2
		1P090034		12	10CP1	1P090035		16	10CP1
090026	BEGIN 500 FT/MIN				10				10
	RATE OF CLIMB				10				10
090027	LEVEL OFF AT 18000				10				10
090028	RECEIVE CLEARANCE TO	1B	19	0	10 *2	1P090036		0	10 *1
	RESUME CLIMB TO	1P090037		3	10 *1	1B	25	7	10CP2
	CRUISE ALTITUDE	1B	17	7	10CP3	1P090038		7	10CP1

		1P090039	10.5	10CP1					10
090029	CLIMB THRU 23000 FT.	3H 02	0	10CP1	1B	25	2		10CP3
	HANDOFF TO SPARTAN-	1B 17	2	10CP4	1P090045		2		10CP1
	BURG HIGH SECTOR	1P090046	5.7	10CP1	1B	19	9		10 *2
	-133.7	1P090041	9	10 *1	1P090042		12.5		10 *1
		1B 25	17	10CP3	1B	17	17		10CP4
		1P090043	17	10CP1	1P090044		20.7		10CP1
		1B 07	23	10CP3	1B	08	23		10CP2
		1B 09	25.88	10CP1	1B	06	28		10CP1
		1B 28	30	10CP2	1B	17	30		10CP4
		1P090045	30	10CP1	1P090046		33.7		10CP1
		1B 19	38	10 *2	1P090047		38		10 *1
		1P090048	41.7	10 *1	1N	07	45		10CP1
		1B 25	47	10CP2	1B	17	47		10CP3
		1P090049	47	10CP1					10
090030	BEGIN MACH 0.65	3F 01	0	10 P3	4B	03	0		10 P2
	SPEED SCHEDULE			10					10
090031	CLIMB THRU 28000 FT.	3H 02	0	10CP4	1B	25	3		10CP2
	REPORT TO ATC.	1P 17	3	10CP3	1P090050		3		10CP1
		1B 20	9	10 *1	1P090051		9		10 *1
		1P090052	12.5	10 *1	1B	25	15		10CP2
		1B 17	15	10CP3	1P090053		15		10CP1
090032	REDUCE RATE OF CLIMB	4B 03	0	10 P3	3L	01	0		10 P4
	TO 500 FT/MIN			10					10
090033	TUNE AND MONITOR	8B 06	0	10CP2	8B090002		6		10CP1
	SPARTANBURG VOR	5V 01	11	10CP3	5V	02	11		10CP2
	-115.7	5V 03	13.93	10CP1	5V	11	15.91		10CP1
		5V 12	18.20	10CP2	1P090065		19.6		10CP1
		1P 12	19.6	10 P1	5H	03	19.6		10CP1
		5G 05	22.5	10 P1					10
090034	LEVEL OFF AT 29000	3H 06	0	10 P2	4A	64	0		10 P2
	FT. ACCELERATE TO			10					10
	LONG RANGE CRUISE			10	4B	03	12		10 P2
	SPEED -MACH 0.67	3F 01	12	10 P3	4A	64	10		10 P3
		4B 03	20	10 P2	3F	01	20		10 P3
090035	REACH MACH 0.67	3F 01	0	10 P3	4B	03	0		10 P2
090036	CONTROL AIRCRAFT - E	4A 65	0	10 P2	8A	06	0		10 P1
	(0 SEC PROC)			10					10
090037	FLIGHT INSTRUMENT	3R 56	0	10 P4	3L	03	0		10 P3
	SCAN - E	3A 11	0	10 P3	3S	15	0		10 P2
090038	CONTROL AIRCRAFT - F	4A 65	0	10 P3	8A	06	0		10 P2
	(120 SEC PROC)			10					10
090039	FLIGHT INSTRUMENT	3R 57	0	10 P1	3L	03	0		10 P2
	SCAN - F	3A 11	0	10 P2	3S	15	0		10 P3
090040	TUNE TO GORDONVILLE	8B 06	0	10CP2	8B090003		6		10CP1
	VOR -115.6	5U 01	12	10CP3	5U	02	12		10CP3
		5U 03	15	10CP2	5U	11	18		10CP2
		5U 12	20	10CP2	1P090066		20		10CP1
		1P 12	20	10 P1	5G	04	25		10 P1
		5H 02	22.44	10CP1					10
090041	CROSS SPARTANBURG			10					10
	VOR. TURN TO HDG 047	3S 04	0	10 P2	4A	28	0		10 P1
090042	TURN COMPLETE - ON			10					10
	HDG 047.			10					10
090043	RECEIVE CLEARANCE TO	1B 19	0	10 *2	1P090054		0		10 *1
	CLIMB TO 33000 FT	1P090055	3.5	10 *1	1B	25	8		10CP3
		1B 17	8	10CP4	1P090056		8		10CP1
		1P090057	12	10CP1	1B	01	15		10CP2
		1B 02	15	10CP2	1B	03	17.9		10CP1
		1B 05	20	10CP1	1B	25	22		10CP3

		1B	17	22	10CP4	1P090058		22	10CP1		
		1P090059		26	10CP1	1B	18	30	10 *4		
		1P090060		30	10 *1	1N	07	33.5	10CP1		
		1B	20	36	10 *2	1P090061		36	10 *1		
		1P090062		39.5	10 *1	1B	14	42	10CP4		
		1B	15	42	10CP4	1P090002		42	10CP1		
090044	BEGIN CLIMB TO 33000 FT.	4A	29	0	10 P2	3L	02	0	10 P1		
		3R	10	0	10 P4				10		
090045	CLIMB THRU 32000 FT. BEGIN 500 FT/MIN RATE OF CLIMB.	3H	02	0	10CP1	1P090067		2	10CP1		
		1P	11	2	10 P4				10		
090046					10				10		
090047					10				10		
090048	FLIGHT INSTRUMENT SCAN -A2	2J	02	0	10 P3	3L	02	0	10 P3		
		3A	10	0	10 P3	2K	14	0	10 P3		
		2K	46	0	10 P2	2K	33	0	10 P2		
090049	CONTROL AIRCRAFT THRU TOUCHDOWN	8A	06	0	10 P3	4A	68	0	10 P1		
					10				10		
090050	CONTROL AIRCRAFT -A1 -ATT CWS MODE	4A	68	0	10 P2				10		
					10				10		
090051	FLIGHT INSTRUMENT SCAN -A1	2J	02	0	10 P2	3L	02	0	10 P1		
		3A	10	0	10 F1	2K	14	0	10 P2		
		2K	46	0	10 P1	2K	33	0	10 P1		
090052	CROSS WPT SID1	2K	14	0	10 P1				10		
090053	TURN TO HEADING 105				10				10		
090054	HEADING CHANGE PROC. -ATT CWS	4A	71	0	10 P1	2K	14	0	10 P2		
		2K	33	0	10 P1	3L	02	0	10 P1		
090055	COMPLETE TURN - ON HDG 105				10				10		
					10				10		
090056	ENGAGE VERT PATH GUIDANCE MODE	2H	07	0	10 P1	2H	08	1.42	10 P1		
		2H	35	2.76	10 P1	2H	36	4.13	10 P1		
		2H	39	4.91	10 P1	2H	40	6.27	10 P1		
		2K	14	7.05	10 P2				10		
090057	CROSS WPT SID2. AGCS TURNS AIRCRAFT TO HDG 088.				10				10		
					10				10		
					10				10		
090058	REACH 10000 FT.	4B	07	0	10 P2	3F	01	1	10 P1		
	BEGIN ACCELERATION TO 280 KIAS.	7F	25	3	10 P1	7F	30	5.24	10 P3		
					10				10		
090059	HANDOFF TO ATLANTA CENTER EAST DEPARTURE CONTROL-123.95	1R	16	0	10 *1	1P090069		0	10 *1		
		1P090070		4	10 *1	1R	23	6	10CP1		
		1R	15	6	10CP1	1P090073		6	10CP1		
		1R	01	10	10CP3	1R	02	10	10CP2		
		1R	03	12.93	10CP2	1R	05	15	10CP2		
		1R	14	17	10CP3	1R	15	17	10CP2		
		1P090093		17	10CP1	1P090094		21	10CP1		
		1R	16	23	10 *2	1P090014		23	10 *1		
		1N	07	27	10CP1	1R	16	30	10 *2		
		1P090015		30	10 *1	1R	14	34	10CP4		
		1R	15	34	10CP3	1P090016		34	10CP1		
090060	CONTACT ATLANTA DEPARTURE CONTROL -125.7	1R	32	0	10 *2	1P090001		0	10 *1		
		1P090024		4.5	10 *1	1R	24	6	10CP1		
		1R	36	6	10CP4	1P090002		6	10CP1		
		1R	07	8	10CP3	1R	08	8	10CP4		
		1R	09	10.9	10CP2	1R	06	12.48	10CP2		
		1R	14	14	10CP4	1R	15	14	10CP3		
		1P090003		14	10CP1	1R	16	18	10 *2		
		1P090005		18	10 *1	1N	07	22	10CP1		
		1N	08	22	10CP1	1R	16	25	10 *3		
		1P090006		25	10 *1	1R	24	28.5	10CP2		

		1R	37	28.5	10CP1	1P090007	28.5	10CP1
090061	TUNE COMPANY FREQ	1Q	01	0	10CP4	1Q 02	0	10CP2
		1Q	03	3	10CP2	1Q 12	5	10CP2
090062	TUNE EMERGENCY FREQ.	1Q	07	0	10CP4	1Q 08	0	10CP4
		1Q	09	2.97	10CP2			10
090063	CLIMB THRU 18000 FT.	3H	04	0	10CP4	3H 03	0	10CP1
	RESET ALTIMETER BARO	1P090095		0	10CP1	1P 02	0	10 P3
	VALUE TO 29.92	3H	04	3	10 P4	3H 03	3	10 P4
090064	CLIMB THRU 21000 FT.	3H	02	0	10CP3			10
090065	HANDOFF TO SPARTAN-	1R	24	0	10CP4	1R 15	0	10CP4
	BURG HIGH SECTOR	1P090040		0	10CP1	1R 16	5	10 *4
	-133.7	1P090074		5	10 *1	1P090075	9	10 *1
		1R	24	10	10CP3	1R 37	10	10CP2
		1P090076		10	10CP1	1R 07	14	10CP3
		1R	08	14	10CP4	1R 09	16.9	10CP2
		1R	06	19	10CP2	1R 25	20.47	10CP1
		1R	32	20.47	10CP3	1P090077	20.47	10CP1
		1P090078		23.81	10CP1	1R 32	27.5	10 *4
		1P090047		27.5	10 *1	1P090048	30.8	10 *1
		1R	24	34.3	10CP4	1R 15	34.3	10CP4
		1P090049		34.3	10CP1			10
090066	CROSS WPT SID3. AGCS				10			10
	BEGINS TURN TO HDG				10			10
	057.				10			10
090067	MON AUTO HEADING	2K	14	0	10 P2	2K 33	0	10 P1
	CHANGE MANEUVER	2K	47	0	10 P1	2K 52	0	10 P1
090068	TUNE NAV-1 TO SPAR-	SB090002		0	10CP1	5W 01	5	10CP3
	TANBURG VOR -115.7	5W	02	5	10CP2	5W 03	7.37	10CP2
		1P090096		8	10CP1	1P 02	8	10 P2
090069	TURN COMPLETE - ON				10			10
	HDG 057.				10			10
090070	BEGIN MACH 0.65	4B	07	0	10 P2	3F 01	.5	10 P3
	CLIMB.	7F	25	3	10 P1	7F 30	3	10 P1
090071	RECEIVE NOTICE OF	1R	33	0	10 *1	1P090079	0	10 *1
	CONFLICTING TRAFFIC	1P090080		3	10 *1	1P090081	7	10 *1
		1R	25	10	10CP2	1R 37	10	10CP3
		1P090082		10	10CP1	1P090083	13.3	10CP1
090072	USE ALT ENG MODE TO	2H	33	0	10 P1	2H 31	2.5	10 P1
	ESTABLISH NEW ALTI-	2H	42	3.28	10 P1	2H 34	1	10 P1
	TUDE WHILE IN VERT	2H	28	4.06	10 P1	2H 30	5.48	10 P1
	PATH MODE	2H	36	6.26	10 P1			10
090073	USE FPA SEL MODE TO	3L	02	0	10 P1	2H 21	1	10 P1
	CONTROL RATE OF	2H	22	2.4	10 P1	2H 26	3.17	10 P1
	CLIMB	2H	27	5.65	10 P1			10
090074	REACH 26000 FT				10			10
090075	MONITOR AUTO LEVEL	2H	25	0	10 P1	3H 02	.77	10 P3
	OFF WHILE IN ALT ENG	2K	17	2.9	10 P1	4B 02	5.17	10 P2
	MODE	7F	25	5.17	10 P4	7F 30	5.17	10 P3
		3A	10	5.17	10 P2			10
090076	SET MFD TO 32 NM MAP	2K	10	0	10 P1	2K 17	2.68	10 P1
090077	RECEIVE CLEARANCE TO	1R	33	0	10 *2	1P090084	0	10 *1
	CONTINUE CLIMB TO	1P090085		3.1	10 *1	1R 24	6.5	10CP4
	CRUISE ALTITUDE	1R	15	6.5	10CP4	1P090086	6.5	10CP1
		1P090087		9.5	10CP1			10
090078	RE-ESTABLISH VERT	2H	39	0	10 P1	2H 40	1.36	10 P1
	PATH MODE	2H	36	2.14	10 P1			10
		4B	07	3.7	10 P2	7F 25	3.7	10 P4
		7F	30	3.7	10 P3	3F 01	4.14	10 P3
090079	CLIMB THRU 28000 FT.	3H	02	0	10CP4	1R 24	2.37	10CP4
	REPORT TO ATC.	1R	15	2.37	10CP4	1P090050	2.37	10CP1

		1R	16	7	10 *2	1P090088		7	10 *1
		1P090089		10	10 *1	1R	25	11	10CP3
		1R	37	11	10CP4	1P090090		11	10CP1
090080	REACH 31000 FT. ACCELERATE TO LONG RANGE CRUISE SPEED -MACH 0.67				10				10
					10				10
					10				10
					10				10
090081	REACH MACH 0.67	4B	07	0	10 P2	3F	01	.5	10 P3
		7F	25	3	10 P1	7F	30	3	10 P1
090082	RECEIVE CLEARANCE TO CONTINUE CLIMB TO CRUISE ALTITUDE	1R	32	0	10 *4	1P090054		0	10 *1
		1P090055		3.5	10 *1	1R	25	8	10CP4
		1R	38	8	10CP1	1P090056		8	10CP1
		1P090057		12	10CP1	1P	06	8	10 P2
090083	TUNE HIGH ROCK ULTRA HIGH SECTOR -134.55	1R	01	0	10CP3	1R	02	0	10CP2
		1R	03	2.93	10CP2	1R	05	4.51	10CP2
		1R	27	6	10CP1	1R	38	6	10CP1
		1P090091		6	10CP1	1P090092		9	10CP1
		1R	16	13	10 *2	1P090014		13	10 *1
		1N	07	17	10CP1	1R	16	20	10 *1
		1P090061		20	10 *1	1P090062		23.5	10 *1
		1R	27	26	10CP2	1R	36	20	10CP4
		1P090002		26	10CP1				10
B9EA01	ENGINE 1 FIRE				10				10
B9EA02	ENGINE FIRE SEQUENCE - PRIMARY	7P	39	00	10 *1	1PB9EA01		.71	10 P1
		1P	19	.71	10CP2	7P	47	2.21	10CP1
		7P	53	2.21	10CP1	7P	15	3.56	10CP1
		1PB9EA02		4.47	10CP1	1P	20	4.47	10 P1
		4B	08	6.47	10CP2	4A	23	8.97	10 P1
		1PB9EA04		8.97	10CP1	1P	09	8.97	10 P1
		7M	08	12.21	10CP3	1PB9EA06		13.61	10CP1
		1P	09	13.61	10 P2	7P	17	15.48	10CP2
		1PB9EA08		16.78	10CP1	1P	09	16.78	10 P1
		7P	15	21.78	10CP4	1PB9EA10		24.78	10CP1
		1P	16	24.78	10 P3	7P	18	26.91	10CP2
		7P	27	27.18	10CP2	1PB9EA11		28.68	10CP1
		1P	16	28.68	10 P4	7P	16	42.18	10CP3
		1PB9EA12		42.68	10CP1	1P	06	42.68	10 P4
B9EA03	ENGINE FIRE SEQUENCE -NOTIFY ATC	1R	25	00	10 P1	1R	41	00	10 P1
		1PB9EA13		00	10 P1	1R	35	6.8	10 *4
		1PB9EA14		3.8	10 *1	1PB9EA27		3.0	10 *1
		1R	42	22.8	10 P1	1R	41	22.8	10 P2
		1PB9EA15		22.8	10 P1	1N	05	33.8	10CP1
		1N	07	36.6	10CP2				10
B9EA04	ENGINE FIRE SEQUENCE READ CHECKLIST PRIMARY	8B	02	00	10CP3	8B	05	5.9	10CP2
		8B	03	10.9	10CP1	1PB9EA16		12.9	10CP1
		1P	16	14.4	10 P4	8B	03	14.4	10CP1
		1PB9EA17		16.4	10CP1	1P	16	16.4	10 P4
		8B	03	17.9	10CP1	1PB9EA18		19.9	10CP1
		1P	16	19.9	10 P4	8B	03	21.4	10CP1
		1PB9EA19		23.4	10CP1	1P	16	23.4	10 P4
		1PB9EA12		24.9	10CP1	1P	06	24.9	10 P4
B9EA05	SECONDARY ENGINE FIRE SEQUENCE	8B	03	00	10CP1	1PB9EA20		2.	10CP1
		1P	16	2.	10 P4	7D	31	3.5	10CP2
		1PB9EA21		5.35	10CP1	1P	16	5.35	10 P4
		7D	18	6.85	10CP1	1PB9EA22		9.25	10CP1
		1P	16	9.25	10 P4	7L	22	10.75	10CP1
		1PB9EA23		13.04	10CP1	1P	13	13.04	10 P3
		7C	31	16.54	10CP3	7C	35	18.89	10CP4
		7B	33	20.28	10CP2	1PB9EA24		22.0	10CP1
		1P	15	22.6	10 P3	1PB9EA25		22.6	10CP1

		1P	16	27.7	10 P4	1PB9EA	26	27.7	10CP1
		1P	16	29.2	10 P4	7E	31	29.2	10CP1
09FE01	HYD SYS B PUMP OVHT	7A	24	0	10CP1	7A	24	0	10 P1
		1P010022		.53	10CP1	1P	06	.53	10 P3
		7A	25	1.53	10CP1	1P	03	1.53	10 P1
		7A	15	3.67	10CP1	7A	06	5.22	10CP1
		7A	24	7.17	10 P1	7A	24	7.17	10CP1
		7A	25	7.7	10CP1	7A	11	7.84	10CP1
		1P09FE01		10.39	10CP1	1P	15	10.39	10 P1
		1P	03	13.1	10 P1	8B	02	10	10CP3
		8B	05	16	10CP1	8B	03	26	10CP2
		1P09FE02		30	10CP1	1P	16	30	10 P4
		1P09FE03		32	10CP1	1P	08	32	10 P2
		1P	03	33.6	10 P1	8B	08	32	10CP1
110001	REACH 33000 FT -EN ROUTE CRUISE ALTI- TUDE . BEGIN ACCEL- ERATION TO LONG RANGE CRUISE SPEED -MACH 0.71	4B	03	0	10 P2	3F	01	0	10 P3
					10				10
					10				10
					10				10
					10				10
					10				10
110002	REPORT REACHING 33000 FT.	1B	25	0	10CP4	1B	32	0	10CP1
		1P110001		0	10CP1	1P110002		4	10CP1
		1B	20	6	10 *3	1P110003		6	10 *1
110003	REACH MACH 0.71	3F	01	0	10 P3	4B	07	0	10 P2
110004	PILOT REQUESTS RE- TURN TO ATLANTA . CONTROLLER COORDI- NATES WITH ADJACENT SECTORS FOR RETURN VECTORS.	1B	25	0	10CP1	1B	17	0	10CP2
		1P110004		0	10CP1	1P110005		4	10CP1
		1B	20	6	10 *4	1P110006		6	10 *1
					10				10
					10				10
					10				10
110005	RECEIVE VECTORS FOR THE LANIER SIX STAR, PULASKI TRANSITION	1B	36	0	10 *1	1P110007		0	10 *1
		1P110008		3.66	10 *1	1P110009		8.54	10 *1
		1B	26	12	10CP1	1B	17	12	10CP1
		1P110010		12	10CP1	1P110011		16	10CP1
		1B	19	12	10 P2				10
110006	BEGIN TURN TO HDG 270	4A	28	0	10 P2	3S	12	5	10 P2
		3S	01	0	10 P2	3L	02	0	10 P1
110007	TUNE BADIN ULTRA HIGH SECTOR -135.35	1B	07	0	10CP3	1B	08	0	10CP2
		1B	09	2.88	10CP1	1B	06	5	10CP1
		1B	28	6.5	10CP1	1B	17	6.5	10CP1
		1P110012		6.5	10CP1	1P110013		10	10CP1
		1B	36	13	10 *2	1P110014		13	10 *1
		1N	07	15	10CP1	1B	36	18	10CP2
		1P110015		18	10CP1				10
110008	SET NAV-1 TO PULASKI VOR	8B	06	0	10CP1	8B110001		6	10CP1
		5U	01	11	10CP3	5U	02	11	10CP3
		5U	03	14	10CP2	1P110020		16.5	10CP1
		1P	12	16.5	10 P1	5G	04	19	10 P1
		5H	02	16.5	10CP1				10
110009	TURN COMPLETE - ON HDG 270				10				10
					10				10
110010	RECEIVE INSTRUCTIONS TO DESCEND TO 31000 FT	1B	19	0	10 *2	1P110016		0	10 *1
		1P110017		3.5	10 *1	1B	25	8	10CP3
		1B	17	8	10CP4	1P110018		8	10CP1
		1P110019		12	10CP1				10
110011	CONTROL A/C MAN - 1	4A	68	0	10 P4	8A	08	0	10 P1
110012	FLT INST SCAN - 1	3R	57	0	10 P2	3A	14	5	10 P1
		3L	04	0	10 P1	3S	17	0	10 P4
11FD01	HYD SYS B LOW PRESS.	7A	24	0	10CP1	7A	24	0	10 P1
		1P010022		.53	10CP1	1P	06	.53	10 P1

		7A	25	1.53	10CP1	1P	03	1.53	10 P1
		7A	11	3.67	10CP1	7A	13	4.22	10CP1
		1P11FD	01	4.77	10CP1	1P	02	4.77	10 P2
		1P	03	6.77	10 P1	4A	62	5	10CP2
		4A	19	6.21	10CP1	7A	20	7.26	10CP2
		4A	06	10	10CP1	7A	06	13.33	10CP1
		7A	08	15.28	10CP1	4D	41	16.74	10CP1
		8B	02	20	10CP3	8B	05	26	10CP1
		8B	03	36	10CP1	1P11FD	02	38	10CP1
		1P	15	38	10 P2	8B	03	41.7	10CP1
		1P11FD	03	43.7	10CP1	1P	16	43.7	10 P3
		8B	03	47	10CP1	1P11FD	04	49	10CP1
		1P	15	49	10 P3	8B	03	53	10CP1
		1P11FD	03	55	10CP1	1P	08	55	10 P2
		8B	08	55	10CP1				10
11AF01	ENG NO.2 OIL FILTER BYPASS	7F	15	0	10CP1	1P11AF	01	.83	10CP1
		1P	15	.83	10 P4	1P	03	4	10 P1
		7F	15	.83	10 P1	4B	02	2	10 P2
		4A	23	3	10 P1	4G	10	6	10 P1
		7F	16	5	10CP1	7F	34	5.83	10CP1
		1P11AF	02	8	10CP1	1P	17	8	10 P1
		1P	03	11.5	10 P1				10
11CB01	NO.2 CSD LOW OIL PRESSURE	7B	73	0	10 *1				10
		1P11CB	01	.75	10CP1	1P	14	.75	10 P4
		7B	74	.75	10CP2	1P	03	2.85	10 P1
		7B	09	3.24	10CP1	1P11CB	02	4.26	10CP1
		1P	19	4.26	10 P1	7B	13	4.5	10CP2
		7B	14	6.46	10CP1	7B	68	8.54	10CP2
		7B	72	10.72	10CP1	7B	63	13.29	10CP1
		7L	13	15.35	10CP4	7B	24	17.64	10CP2
		7B	44	18.56	10CP2	7B	25	20.06	10CP2
		1P11CB	03	21	10CP1	1P	17	21	10 P2
		8B	02	21	10CP3	8B	05	27	10CP1
		8B	03	37	10CP1	1P11CB	04	39	10CP1
		1P	17	39	10 P2	8B	03	43	10CP1
		1P11CB	05	45	10CP1	1P	17	45	10 P3
		8B	03	49	10CP1	1P09FE	03	51	10CP1
		1P	08	51	10 P2	1P	03	53	10 P1
		8B	08	51	10CP1				10
130001	REPORT REACHING CRUISE ALT	1R	26	0	10CP1	1R	38	0	10CP2
		1P110001		0	10CP1	1P110002		4	10CP1
		1R	33	5	10 *3	1P110003		5	10 *1
130002	MON AUTO LEVEL OFF WHILE IN VERT PATH MODE	3H	02	0	10 P3	2K	17	2.13	10 P1
		4B	02	4.4	10 P2	7F	25	7.13	10 P4
		7F	30	7.13	10 P3	3A	10	7.57	10 P2
130003	CROSS WPT LINCO				10				10
130004	PILOT REQUESTS RETRN TO ATLANTA. CONTROLLER COORDINATES WITH ADJACENT SECTOR CONTROLLERS FOR RETURN VECTORS.	1R	26	0	10CP2	1R	38	0	10CP3
		1P110004		0	10CP1	1P110005		4	10CP1
		1R	33	6	10 *4	1P110006		6	10 *1
					10				10
					10				10
					10				10
130005	RECEIVE VECTORS	1R	33	0	10 *2	1P130001		0	10 *1
		1P130002		3.7	10 *1	1R	26	7	10CP3
		1R	38	7	10CP4	1P130003		7	10CP1
130006	TURN TO HDG 270				10				10
130007	HEADING CHANGE MANEUVER USING TKA SEL MODE -VERT PATH CURRENT MODE	2H	19	0	10 P1	2H	20	2.5	10 P1
		2H	17	3.61	10 P1	2H	14	4.38	10 P1
		2H	15	5.79	10 P1	2H	42	6.56	10 P1
		2H	28	7.34	10 P1	2H	29	8.76	10 P1

		2K	17	12.04	10 P1					10
130008	TURN COMPLETE - ON				10					10
	HDG 270				10					10
130009	RECEIVE INSTRUCTIONS	1R	34	0	10 *1	1P130004		0		10 *1
	FOR A 4-D SHINE 01	1P130005		4.5	10 *1	1P130006		9		10 *1
	STAR	1R	26	10	10CP4	1R	39	10		10CP1
		1P130010		10	10CP1	1P130011		14		10CP1
		8B	01	17.5	10CP2					10
130010	SET UP NEW 4-D				10					10
	FLIGHT PLAN				10					10
130011	LOOK UP PAGE 2	2L	68	0	10CP1	2L	16	2.03		10CP2
		2L	68	4.11	10CP2	2L	16	5.50		10CP1
130012	LOOK UP PAGE 2 -	2L	52	0	10CP2	2L	16	12		10CP1
	STAR CALL-UP	2L	20	15	10CP2	2K	17	17		10CP1
130013	STAR NAME - SHINE 01	2L	55	1.46	10CP1	2L	44	2.81		10CP2
		2L	45	4.16	10CP2	2L	50	5.51		10CP2
		2L	41	6.86	10CP1	2L	35	8.21		10CP1
		2L	26	9.56	10CP1					10
130014	LOOK UP PAGE 2 -	2L	38	0	10CP2	2L	16	8.32		10CP1
	AWY CALL-UP	2L	20	10.66	10CP2	2K	17	12.17		10CP1
130015	AWY NAME - J815R	2L	46	1.46	10CP1	2L	33	2.81		10CP2
		2L	26	4.16	10CP3	2L	30	5.51		10CP1
		2L	54	6.86	10CP2					10
130016	SHINE 01 AND J815R	2K	17	0	10CP2					10
	DISPLAYED ON MFD.				10					10
	CO-PILOT DETERMINES				10					10
	THAT THE COMMON WPT				10					10
	ON THE STAR AND AWY				10					10
	IS THE WPT SHINE. AN				10					10
	EST MADE OF RNG AND				10					10
	BRG FROM WPT SHINE				10					10
	TO PT WHERE HDG 270				10					10
	INTCPTS J815R				10					10
130017	INITIALIZE PAGE	2L	63	0	10CP1	2L	07	1.48		10CP2
130018	DESTINATION NAME-	2L	47	3.56	10CP2	2L	37	4.91		10CP2
	KATL	2L	56	6.37	10CP2	2L	48	7.83		10CP1
130019	ATC CLRNC PAGE -				10					10
	CREATE WPT BASED ON	2L	37	0	10CP2	2L	08	15.18		10CP1
	BEARING AND RANGE	2K	17	17.52	10CP1	2L	20	19.79		10CP3
	FROM EXISTING WPT				10					10
130020	WPT01 BEARING/RANGE	2L	59	1.46	10CP1	2L	52	2.81		10CP1
	270 DEG 80 NM	2L	56	4.16	10CP1	2L	35	5.51		10CP1
		2L	26	6.86	10CP3	2L	27	8.21		10CP1
		2L	32	9.69	10CP1	2L	35	11.04		10CP1
		2L	33	12.39	10CP1	2L	35	13.83		10CP1
130021	FL INPUT - 320	2L	42	0	10CP2	2L	19	1.46		10CP2
		2L	28	3.52	10CP1	2L	27	4.87		10CP1
		2L	35	6.22	10CP1	2L	20	7.57		10CP1
130022	GS INPUT - 250	2L	49	0	10CP1	2L	19	1.47		10CP2
		2L	27	3.53	10CP1	2L	30	4.88		10CP1
		2L	35	6.23	10CP1	2L	20	7.58		10CP3
130023	WPT NAME - LAKEE	2L	48	1.46	10CP1	2L	37	2.81		10CP1
		2L	47	4.16	10CP1	2L	41	5.51		10CP1
		2L	41	6.86	10CP1					10
130024	PTA INPUT - 10:21:00	2L	56	0	10CP2	2L	26	1.46		10CP3
		2L	35	2.81	10CP1	2L	27	4.16		10CP1
		2L	26	5.51	10CP3	2L	35	6.86		10CP1
		2L	35	8.21	10CP1	2L	20	9.56		10CP3
130025	HANDOFF TO BADIN	1R	34	0	10 *2	1P130037		0		10 *1
	ULTRA HIGH SECTOR	1P130008		4	10 *1	1R	24	5		10CP3

	-135.35	1R	39	5	10CP2	1P130009		5	10CP1
		1R	07	8.5	10CP3	1R	08	8.5	10CP4
		1R	09	11.4	10CP2	1R	27	13	10CP3
		1R	38	13	10CP2	1P110001		13	10CP1
		1P110002		17	10CP1	1R	32	18	10 *1
		1P110014		18	10 *1	1N	07	21	10CP1
130026	INITIATE TIME PATH	2H	35	0	10CP2	2H	39	2.15	10CP1
	-4-D GUIDANCE MODE	2H	49	3.51	10CP1	2H	50	4.86	10CP1
		2K	17	5.64	10CP1	2K	23	7.91	10CP1
		2K	31	5.64	10CP1				10
130027	KEY IN WPT PPOS	2L	52	1.46	10CP1	2L	52	2.81	10CP1
		2L	51	4.16	10CP1	2L	55	5.51	10CP1
130028	WPT02 BEARING/RANGE	2L	59	1.46	10CP1	2L	52	2.81	10CP1
	234 DEG 17 NM	2L	56	4.16	10CP1	2L	35	5.51	10CP1
		2L	27	6.86	10CP1	2L	27	8.21	10CP1
		2L	28	9.69	10CP1	2L	29	11.04	10CP1
		2L	26	12.39	10CP1	2L	32	13.84	10CP1
130029	KEY IN WPT SHINE	2L	55	0	10CP1	2L	44	1.35	10CP2
		2L	45	2.70	10CP1	2L	50	4.05	10CP1
		2L	41	5.40	10CP1				10
130030	ATC CLEARANCE PAGE -	2L	52	0	10CP2	2L	08	11.01	10CP1
	STAR INPUT	2K	17	13.35	10CP1				
140001	CONTACT PULASKI HIGH	1B	01	0	10CP2	1B	02	0	10CP2
	SECTOR -132.75	1B	03	2.9	10CP1	1B	04	5	10CP1
		1B	28	6.5	10CP2	1B	17	6.5	10CP4
		1P140001		6.5	10CP1	1P140002		10.5	10CP1
		1B	20	15	10 *4	1P140003		15	10 *1
		1N	06	19	10CP1	1B	36	23	10 *2
		1P140004		23	10 *1				10
140002	BEGIN DESCENT TO				10				10
	31000FT				10				10
140003	ALTITUDE CHANGE PROC	4A	29	0	10 P2	3L	02	0	10 P1
		3H	02	0	10 P1	3R	10	0	10 P4
		4B	03	0	10 P2	3F	01	0	10 P3
140004	LEVEL OFF AT 31000				10				10
	FT				10				10
140005	RECEIVE VECTOR TO	1B	36	0	10 *3	1P140005		0	10 *1
	INTERCEPT PULASKI	1P140006		3.27	10 *1	1P140007		7.63	10 *1
	225 RADIAL	1B	25	13	10CP3	1B	17	13	10CP4
		1P140008		13	10CP1	1P140009		17	10CP1
140006	TURN TO HDG 240				10				10
140007	HEADING CHANGE PROC.	3S	01	0	10 P2	4A	28	0	10 P2
		3L	02	0	10 P1	3S	11	0	10 P1
		3R	58	0	10 P1				10
140008	TURN COMPLETE - ON				10				10
	HDG 240				10				10
140009	BEGIN TURN TO PULAS-				10				10
	KI 225 RADIAL				10				10
140010	TURN COMPLETE - ON				10				10
	HDG 225				10				10
140011	SET NAV-2 TO TOCCOA	8B	06	0	10CP1	8B140001		6	10CP1
	VOR -109.8	5V	01	12	10CP3	5V	02	12	10CP2
		5V	03	14.93	10CP1	1P140042		17	10CP1
		1P	13	17	10CP1	5G	05	19.5	10 P1
		5H	03	17	10CP1				10
140012	HANDOFF TO LANIER	1B	18	0	10 *4	1P140010		0	10 *1
	HIGH SECTOR	1B	24	4	10CP4	1B	16	4	10CP1
		1P140011		4	10CP1	1B	07	8	10CP3
		1B	08	8	10CP2	1B	09	10.88	10CP1
		1B	06	13	10CP1	1B	28	14.5	10CP3

		1B	17		14.5	10CP3	1P140012		14.5	10CP1
		1B	20		20	10 *4	1P140013		20	10 *1
		1N	07		23	10CP1	1B	36	26	10 *2
		1P140014			26	10 *1				10
140013	RECEIVE INSTRUCTIONS	1B	36		0	10 *4	1P140015		0	10 *1
	TO DESCEND TO 24000	1P140016			3.9	10 *1	1B	25	7	10CP1
	FT	1B	17		7	10CP2	1P140017		7	10CP1
		1P140018			11	10CP1				10
140014	BEGIN MACH 0.75					10				10
	DESCENT					10				10
140015	REACH 26000 FT					10				10
140016	RECEIVE CLEARANCE TO	3H	02		0	10CP1	1B	25	2	10CP2
	DESCEND TO 11000 FT.	1B	17		2	10CP3	1P140019		2	10CP1
		1B	19		7	10 *3	1P140020		7	10 *1
		1P140021			10.75	10 *1	1B	25	15	10CP3
		1B	17		15	10CP4	1P140022		15	10CP1
		1P140023			19	10CP1				10
140017	TUNE NORCROSS LOW	1B	01		0	10CP2	1B	02	0	10CP2
	SECTOR -125.2	1B	03		2.9	10CP1	1B	05	5	10CP1
		1B	28		6.5	10CP2	1B	17	6.5	10CP4
		1P140024			6.5	10CP1	1P140025		10.5	10CP1
		1B	18		14	10 *3	1P140026		14	10 *1
		1P140027			17.5	10 *1	1N	07	20	10CP1
140018	SET ALTIMETER BARO	1P140043			0	10CP1	1P	13	0	10 P2
	SETTING TO 29.80					10				10
140019	CROSS TOCCOA VOR					10				10
140020	TUNE NORCROSS VOR	8B	06		0	10CP1	8B140002		6	10CP1
	-116.6	5U	01		13.70	10CP3	5U	02	13.70	10CP3
		5U	03		16.78	10CP2	1P140044		18.78	10CP1
		1P	13		15	10 P1	5G	04	17.5	10 P1
		5H	02		20.81	10CP1				10
140021	RECEIVE INSTRUCTIONS	1B	37		0	10 *1	1P140028		0	10 *1
	TO GO INTO A HOLDING	1P140029			4	10 *1	1P140030		9.33	10 *1
	PATTERN AT LANIER	1P140031			14.66	10 *1	1B	25	16	10CP3
	INTERSECTION	1B	17		16	10CP4	1P140032		16	10CP1
		1P140033			20.5	10CP1				10
140022	REACH 17000 FT.					10				10
	BEGIN 500 FT/MIN					10				10
	RATE OF DESCENT					10				10
140023	REPORT 1000 FT TO	3H	02		0	10CP3	1P140045		2	10CP1
	LEVEL OFF	1P	11		2	10 P4				10
140024	REACH 16000 FT. BE-					10				10
	GIN DECELLERATION TO					10				10
	210 KIAS.					10				10
140025	TUNE CHATTANOOGA VOR	8B	07		0	10CP1	8B140003		6	10CP1
	-115.8	5V	01		11	10CP3	5V	02	11	10CP2
		5V	03		13.93	10CP1	1P140046		16	10CP1
		1P	13		16	10 P1	5G	05	19	10 P1
		5H	03		19	10CP1				10
140026	REACH 210 KIAS.	3A	01		0	10 P3	4B	03	0	10 P2
140027	HOLDING PATTERN PROC	3S	20		0	10 P1	3S	12	0	10 P1
	-RIGHT TURNS	4A	66		0	10 P1	3L	03	0	10 P3
	-1 1/2 MIN. LEGS	3A	11		0	10 P3	3N	03	4.5	10 P1
		4B	07		7	10 P2				10
	-1 LOOP	3S	17	1	0	10 P2	4A	67	1 30	10 P1
	-INITIATE FIRST	3S	16	1	30	10 P1	4A	65	1 30	10 P4
		3N	04	1	30	10 P1				10
	TURN OVER INTER-	3N	03	1	30	10CP1	3A	11	1 30	10 P3
	SECTION	4B	07	1	35	10 P2	3L	03	1 30	10 P3
		3S	17	1	30	10 P2	3N	02	2 00	10CP1

		1P140047	2	0	10CP1	1P	11	2	00	10 P2
		3N 02	2	30	10CP1	1P140048		2	30	10CP1
		1P 11	2	30	10 P2	3N	02	2	55	10CP1
		1P140049	2	55	10CP1	1P	11	2	55	10 P2
		3N 04	3	00	10CP1	4A	66	3	00	10 P1
		3N 03	3	00	10 P1					10
		3L 03	3	00	10 P3	3A	11	3	00	10 P3
		4B 07	3	05	10 P2	3S	17	4	00	10 P2
		4A 67	4	30	10 P1	3N	04	4	30	10 P1
		3S 15	4	30	10 P2					10
		4A 65	4	30	10 P1	3N	03	4	10	10CP1
		3A 10	4	30	10 P3	4B	07	4	35	10 P2
		3L 03	4	30	10 P4	3N	02	5	00	10CP1
		1P140047	5	00	10CP1	1P	11	5	00	10 P2
14HLDG	HOLDING PATTERN PROC	3S 20		0	10 P1	3S	12		0	10 P1
	-RIGHT TURNS	3L 03		0	10 P1	3S	21		0	10 P1
	-1 1/2 MIN. LEGS	3A 11		0	10 P1	3N	03		4.5	10 P1
		4B 07		7	10 P2	3H	08		0	10 P1
	-1 LOOP					4A	67	1	0	10 P1
	-INITIATE FIRST	3S 16	1	30	10 P1					
		3N 04	1	30	10 P1					
	TURN OVER INTER-	3N 03	1	30	10CP1					
	SECTION	4B 07	1	35	10 P2					
						3N	02	2	00	10CP1
		1P140047	2	0	10CP1	1P	11	2	00	10 P2
		3N 02	2	30	10CP1	1P140048		2	30	10CP1
		1P 11	2	30	10 P2	3N	02	2	55	10CP1
		1P140049	2	55	10CP1	1P	11	2	55	10 P2
		3N 04	3	00	10CP1					
		3N 03	3	00	10 P1					
		4B 07	3	05	10 P2					
		4A 67	4	30	10 P1	3N	04	4	30	10 P1
						4B	07	4	35	10 P2
						3N	02	5	00	10CP1
		1P140047	5	00	10CP1	1P	11	5	00	10 P2
140028	RECEIVE CLEARANCE TO	1B 36		0	10 *3	1P140034			0	10 *1
	CONTINUE DESCENT AND	1P140035		3.27	10 *1	1P140036			7.63	10 *1
	APPROACH	1B 25		12	10CP1	1B	17		12	10CP2
		3N 03		12	10 P1					10
		1P140037		12	10CP1	1P140038			16.5	10CP1
140029	BEGIN DESCENT. SET				10					10
	THRUST FLIGHT				10					10
	IDLE				10					10
140030	REACH 11000 FT AT				10					10
	230 KIAS				10					10
140031	HANDOFF TO ATLANTA	1B 20		0	10 *1	1P140039			0	10 *1
	APPROACH CONTROL	1P140040		4	10 *1	1B	25		5	10CP2
		1B 17		5	10CP3	1P140041			5	10CP1
140032	ALTIMETER BARO SET	3H 04		0	10 P3	3H	03		0	10 P2
	PROC.	3H 04		0	10CP3	3H	03		0	10CP3
150001	RECEIVE INSTRUCTIONS	1R 34		0	10 *3	1P110016			0	10 *1
	TO DESCEND TO 31000	1P110017		3	10 *1	1R	30		8	10CP1
	FT.	1R 39		8	10CP3	1P110018			8	10CP1
		1P110019		12	10CP1	1R	01		13	10CP3
		1R 02		13	10CP2	1R	03		15.93	10CP2
		1R 05		17.51	10CP2	1R	27		19	10CP1
		1R 38		19	10CP1	1P140001			19	10CP1
		1P140002		23	10CP1	1R	33		25	10 *4
		1P140003		25	10 *1	1N	07		28	10CP1
150002	USE ALT ENG MODE TO	2H 33		0	10 P1	2H	31		2.47	10 P1

	ESTABLISH NEW ALTI-	2H	51	5.73	10 P1	2H	34	4.31	10 P1
	TUDE WHILE IN TIME	2H	28	4.31	10 P1	2H	30	6.51	10 P1
	PATH MODE	2H	42	7.29	10 P1	2H	36	8.07	10 P1
		2H	44	8.85	10 P1				10
150003					10				10
150004	REVISE FLIGHT PLAN	2L	65	0	10CP1	2L	09	2.03	10CP1
	TO ESTABLISH NEW	2L	24	4.37	10CP1	2L	24	5.87	10CP2
	FLIGHT LEVEL 310 AT	2L	09	7.19	10CP2	2L	42	9.27	10CP1
	SPT01	2L	28	10.62	10CP2	2L	26	12.08	10CP3
		2L	35	13.43	10CP1	2L	20	14.78	10CP1
		2L	09	16.25	10CP2	2L	21	18.33	10CP3
		1P150012		20	10CP1	1P	02	20	10 P2
150005	ADJUST THRUST TO FLY	2K	17	0	10 P1	2K	31	0	10 P1
	AIRPLANE SYMBOL ON	4B	07	0	10 P2	2K	24	0	10 P3
	MFD INTO TIME BOX	2K	32	5.13	10 P1	2K	17	10	10 P1
		2K	31	10	10 P1	4B	07	10	10 P2
		2K	32	12	10 P1				10
150006	RE-ESTABLISH TIME	2H	39	0	10 P1	2H	49	2.92	10 P1
	PATH -4-D MODE	2H	50	4.27	10 P1	2H	32	5.05	10 P1
		2H	44	5.83	10 P1	2H	38	2.14	10 P1
		2H	42	6.61	10 P1	2H	40	1.36	10 P1
150007	LEVEL OFF AT 31000				10				10
	FT				10				10
150008	HANDOFF TO LANIER	1R	16	0	10 *2	1P140010		0	10 *1
	HIGH SECTOR -132.4	1R	14	4	10CP4	1R	15	4	10CP3
		1P140011		4	10CP1	1R	07	8	10CP3
		1R	08	8	10CP4	1R	09	10.9	10CP2
		1R	06	12.48	10CP2	1R	27	14	10CP4
		1R	15	14	10CP4	1P140012		14	10CP1
		1R	33	19	10 *4	1P140013		19	10 *1
		1N	07	22	10CP1				10
150009	BEGIN TURN TO HDG				10				10
	234 TO ACQUIRE J815R				10				10
150010	TURN COMPLETE - ON				10				10
	AWY J815R				10				10
150011	AGCS BEGINS PROGRAM-				10				10
	MED DESCENT TO 11000				10				10
	FT. THRUST ADJUSTED				10				10
	AUTOMATICALLY.				10				10
150012	RECEIVE INSTRUCTIONS	1R	32	0	10 *2	1P150001		0	10 *1
	FROM ATC	1P150002		4	10 *1	1R	25	7	10CP3
		1R	37	7	10CP4	1P150003		7	10CP1
150013	SET ALTIMETER BARO	1P150013		0	10CP1	1P	15	0	10 P1
	SETTING TO 29.88				10				10
150014	CROSS WPT SHINE.				10				10
	AGCS BEGIN AUTO				10				10
	TURN TO HDG 211				10				10
150015	TURN COMPLETE - ON				10				10
	HDG 211				10				10
150016	DESCEND THRU 26000	1R	24	0	10CP4	1R	15	0	10CP4
	FT. REPORT TO ATC.	1P140019		0	10CP1	1R	34	5	10 *4
	HANDOFF TO NORCROSS	1P150005		5	10 *1	1P150006		8	10 *1
	LOW SECTOR -125.2	1R	30	10	10CP2	1R	39	10	10CP4
		1P150007		10	10CP1	1R	01	14	10CP3
		1R	02	14	10CP2	1R	03	16.93	10CP2
		1R	05	18.51	10CP2	1R	27	20	10CP1
		1R	38	20	10CP1	1P140024		20	10CP1
		1P140025		24	10CP1	1R	33	27	10 *4
		1P140013		27	10 *1	1N	07	30	10CP1
150017	CROSS WPT LANDS.				10				10

	AGCS BEGINS PROGRAM-				10					10	
	MED TURN TO HDG 228				10					10	
150018	TURN COMPLETE - ON				10					10	
	HDG 228				10					10	
150019	LEVEL OFF AT 11000				10					10	
	FT				10					10	
150020	MONITOR AUTO LEVEL	3H	02	0	10	P3	2K	14	2.13	10	P1
	OFF WHILE IN TIME	3L	01	4.4	10	P1				10	
	PATH MODE				10					10	
150021	AGSC BEGINS PROGRAM-				10					10	
	MED DECELERATION TO				10					10	
	250 KIAS.				10					10	
150022	REACH 250 KIAS				10					10	
150023	RECEIVE INSTRUCTIONS	1R	35	0	10	*1	1P150009		0	10	*1
	TO CHANGE LAKESIDE	1P150010		4	10	*1	1R	30	9	10CP1	
	PTA TO 10:22:15	1R	39	9	10CP3		1P150011		9	10CP1	
150024	REVISE FLIGHT PLAN	2L	65	0	10CP1		2L	09	2.03	10CP1	
	TO CHANGE LAKESIDE	2L	24	4.37	10CP1		2L	24	5.87	10CP2	
	PTA	2L	09	7.19	10CP1		2L	56	9.53	10CP1	
		2L	26	10.88	10CP1		2L	35	12.33	10CP1	
		2L	27	13.68	10CP1		2L	27	15.03	10CP1	
		2L	26	16.38	10CP3		2L	30	17.73	10CP1	
		2L	20	19.08	10CP2		2L	09	20.59	10CP1	
		2L	21	22.93	10CP4		1P150014		24.45	10CP1	
		1P	02	24.45	10	P3				10	
150025	MONITOR AIRCRAFT AND	2K	17	0	10	P1	2K	31	0	10	P1
	TIME BOX SYMBOLS ON				10					10	
	MFD AS AGCS ADJUSTS				10					10	
	SPEED TO ACQUIRE NEW				10					10	
	TIME SLOT				10					10	
150026	REACH 220 KIAS				10					10	
150027	HANDOFF TO ATLANTA	1R	16	0	10	*4	1P140039		0	10	*1
	APPROACH CONTROL	1P140040		4	10	*1	1R	24	6	10CP4	
	-126.9	1R	40	6	10CP1		1P140041		6	10CP1	
160001	TUNE ATLANTA	1B	07	0	10CP3		1B	08	0	10CP2	
	APPROACH CONTROL	1B	09	2.88	10CP1					10	
	-126.9				10					10	
160000	TURN ON LANDING LTS	7G	17	0	10CP2					10	
160002	TUNE ATIS -123.7	1A	07	0	10CP3		1A	08	0	10CP2	
		1A	09	2.98	10CP1		1A	06	5	10CP1	
		1A	17	6.43	10CP2		1A	15	8	10	*3
		1P160001		8	10	*1	1P160002		11.42	10	*1
		1P160003		15.98	10	*1	1P160004		20.54	10	*1
		1P160005		25.1	10	*1	1P160006		29.66	10	*1
160003	SET ALTIMETER BARO	1P160043		0	10CP1		1P	13	0	10	P3
	SETTING TO 29.84				10					10	
160004	CONTACT ATLANTA AP-	1A	06	0	10CP1		1A	10	2.4	10CP4	
	PROACH CONTROL	1A	12	2.4	10CP3		1P160007		2.4	10CP1	
		1P160008		6.4	10CP1		1A	15	9	10	*4
		1N	07	12	10CP1		1P160009		9	10	*1
160005	DESCENT AND APPROACH	1P160043		0	10	P1	1P	02	0	10CP2	
	CHECKLIST - 1	8B	02	2	10CP3		8B	05	8	10CP2	
		8B	03	13	10CP1		1P160044		15	10CP1	
		1P	10	15	10	P1	1P160045		17	10CP1	
		1P	07	17	10	P4	8B	03	18	10CP1	
		1P160046		20	10CP1		1P	13	20	10	P4
		7D	69	22	10CP1		7D	70	24.67	10CP1	
		7E	08	26.69	10CP1		1P160047		28	10CP1	
		1P	16	28	10	P1				10	
160006	DESCENT AND APPROACH	8B	03	0	10CP1		1P160048		2	10CP1	

	CHECKLIST - 2	1P	11	2	10 P3	7M	03	3	10 P3
		7M	06	6.54	10 P4	1P160049		8.5	10 P1
		1P	06	8.5	10CP4	8B	03	9	10CP1
		1P160050		11	10CP1	1P	12	11	10 P4
		7G	17	12	10CP2	1P160051		14.2	10CP1
		1P	16	14.2	10 P2	8B	03	14.5	10CP1
		1P160052		16.5	10CP1	1P	12	16.5	10 P2
		3H	02	18	10CP4	3H	05	20.37	10CP1
		1P160053		23.4	10CP1	1P	09	23.40	10 P1
160007	DESCENT AND APPROACH	8B	03	0	10CP1	1P160054		2	10CP1
	CHECKLIST - 3	1P	02	2	10 P1	8B010004		2	10CP1
		8B160001		5	10CP1	7F	26	10	10CP4
		7F	27	10.32	10CP1	7F	28	12.32	10CP4
		7F	29	12.64	10CP1	8B160002		15	10CP1
						3A	05	20	10CP2
		1P160055		20	10CP1	1P	14	20	10 P1
		3A	07	22	10 P2	3A	05	22	10 P3
		3A	13	25	10 P1	3A	12	25	10CP1
		1P160056		28	10CP1	1P	08	28	10 P2
		8B	03	29.6	10CP1	1P160057		29.6	10CP1
		1P	02	31.6	10 P4	8B	08	31.6	10CP1
		8B010005		34.6	10CP1				10
160008	CROSS NORCROSS VOR.	1B	18	0	10 *3	1P160010		0	10 *1
	RECEIVE INSTRUCTIONS	1P160011		4	10 *1	1B	25	6	10CP1
	TO TURN TO HDG 210	1B	17	6	10CP2	1P160012		6	10CP1
	AND TO SLOW TO 200				10				10
	KIAS				10				10
160009	TURN TO HDG 210 AND				10				10
	SLOW TO 200 KIAS				10				10
160010	TURN COMPLETE - ON				10				10
	HDG 210				10				10
160011	SET FLAPS TO FLAPS 1	1P160058		0	10 P1	1P	10	0	10CP2
		4E	07	1	10CP1	4E	15	3.69	10CP3
		4N	03	5.92	10CP2	4N	04	7.09	10CP2
		1P160058		8.26	10CP1	1P	10	5	10 P2
		7F	30	7	10 P3	7F	25	7	10 P4
160012	REACH 200 KIAS	4B	07	0	10 P2				10
160013	SET NAV-1 TO RUNWAY	8B	06	0	10CP1	8B160003		6	10CP1
	08 ILS -109.9	5U	01	11	10CP3	5U	02	11	10CP3
		5U	03	14	10CP2	1P160059		16.5	10CP1
		1P	12	16.5	10 P1	5G	04	19	10 P1
		5H	02	16.5	10CP1				10
160014	SET NAV-2 TO REG VOR	5V	01	0	10CP3	5V	02	0	10CP2
	-111.8	5V	03	2.93	10CP1	1P160060		5	10CP1
		1P	02	5	10 P2	5G	05	7	10 P1
		5H	03	5	10CP1				10
160015	RECEIVE INSTRUCTIONS	1B	37	0	10 *2	1P160014		0	10 *1
	TO SLOW TO 190 KIAS	1B	14	4	10CP2	1B	15	4	10CP2
		1P160015		4	10CP1				10
160016	REDUCE SPEED	4B	07	0	10 P2				10
160017	SET FLAPS TO FLAPS 5	1P160061		0	10 P1	4E	09	1	10CP3
		1P160061		5	10CP1				10
160018	FLAP SET PROCEDURE	1P	10	0	10CP2				10
		4E	15	2.69	10CP3	4E	16	4.71	10CP1
		4N	03	3.69	10CP2	4N	04	4.86	10CP2
		1P	10	6.03	10 P2	7F	25	7	10 P4
		7F	30	7.44	10 P3				10
160019	HANDOFF TO APPROACH	1B	20	0	10 *1	1P160016		0	10 *1
	CONTROL -127.25	1P160017		4	10 *1	1B	26	6	10CP2
		1B	32	6	10CP2	1P160018		10	10CP1

		1B	01	10	10CP2	1B	02	10	10CP2
		1B	03	12.88	10CP1	1B	05	15	10CP1
		1B	28	16.5	10CP4	1B	32	16.5	10CP1
		1P160019		16.5	10CP1	1P160020		20	10CP1
		1B	19	22	10 *4	1P160021		22	10 *1
		1N	07	26	10CP1				10
160020	RECEIVE INSTRUCTIONS TO TURN TO HDG 270, REDUCE SPEED TO 170, AND TO DESCEND TO 4500 FT.	1B	19	0	10 *2	1P160022		0	10 *1
		1P160023		4	10 *1	1B	25	8	10CP3
		1B	17	8	10CP4	1P160024		8	10CP1
		1P160025		12	10CP1				10
160021	BEGIN TURN TO HDG 270				10				10
					10				10
160022	TURN COMPLETE - ON HDG 270. BEGIN DECELERATION TO 170.	4B	07	0	10 P2				10
					10				10
					10				10
160023	REACH 170 KIAS				10				10
160024	BEGIN DESCENT TO 4500 FT.				10				10
					10				10
160025	SET FLAPS TO FLAPS 15	1P160062		0	10 P1	4E	11	1	10CP3
		1P160062		5	10CP1				10
160026	LEVEL OFF AT 4500 FT				10				10
160027	RECEIVE INSTRUCTIONS TO SLOW TO 160 KIAS.	1B	37	0	10 *2	1P160063		0	10 *1
		1B	14	4	10CP2	1B	15	4	10CP2
		1P160064		4	10CP1				10
160028	REDUCE THRUST	4B	07	0	10 P2				10
160029	REACH 160 KIAS	4B	07	0	10 P2				10
160030	RECEIVE INSTRUCTIONS TO TURN TO HDG 180	1B	18	0	10 *4	1P160026		0	10 *1
		1B	26	4	10CP2	1B	32	4	10CP2
		1P160027		4	10CP1				10
160031	TURN TO HDG 180				10				10
160032	TURN COMPLETE - ON HDG 180				10				10
					10				10
160033	RECEIVE FINAL APPROACH INSTRUCTION	1B	37	0	10 *3	1P160028		0	10 *1
		1P160029		3.21	10 *1	1P160030		7.49	10 *1
		1P160031		11.77	10 *1	1B	26	15	10CP1
		1B	17	15	10CP1	1P160032		15	10CP1
		1P160033		19	10CP1				10
160034	TUNE ATLANTA TOWER -119.5	1B	07	0	10CP3	1B	08	0	10CP2
		1B	09	2.88	10CP1				10
160035	BEGIN TURN TO HDG 120				10				10
					10				10
160036	TURN COMPLETE - ON HDG 120				10				10
					10				10
160037	CAPTURE ILS LOC BEGIN TURN TO HDG 090	3R	59	0	10CP1	1P160067		2.6	10CP1
		1P	02	2.6	10 P4	3R	16	0	10 P3
		3S	01	0	10 P2	4A	28	0	10 P2
		1P	02	6.50	10CP2	3S	11	6.53	10 P2
					10	1P160068		6.53	10 P1
		3V	06	4	10 P1	3R	16	10	10 P3
		3S	01	10	10 P2	4A	28	10	10 P2
160038	SET DECISION HEIGTH ON RADIO ALTIMETER				10				10
					10				10
160039	SET ADF-1 TO LAKE-SIDE -375KC	5D	17	0	10CP3	5D	22	3	10CP1
		5D	01	3.77	10CP2	5D	02	5.75	10CP3
		1P160065		7.73	10CP1	1P	02	7.73	10 P1
160040	SET ADF-2 TO LAKE-SIDE -375	5E	17	0	10CP2	5E	01	3	10CP2
		5E	02	3	10CP3	5E	20	[illegible]	10CP1
		1P160066		5	10CP1	1P	02	5	10 P1
160041	MON VOR/RMI-1	5G	04	0	10 P2	5G	05	0	10 P2

160042	MON ADF/RMI-1	5D	28	0	10 P2	5D	29	0	10 P2
160043	TUNE NAV-1 TO RWY 08	5U	01	0	10CP3	5U	02	0	10CP3
	ILS -109.9	5U	03	3	10CP2	1P160069		5	10CP1
		1P	02	5	10 P1				10
160044	TURN COMPLETE - ON HDG.090 -RWY 08 HDG				10				10
160045	ANNUNCIATOR RECALL	7A	28	0	10CP1	7A	36	2.28	10CP1
160046	CONTROL AIRCRAFT ON	3R	16	0	10 P3	3S	01	0	10 P2
	FINAL APP - A (10)	4A	30	0	10 P2	3A	10	0	10 P1
		3L	02	0	10 P1	3H	06	0	10 P2
		3N	05	0	10 P2				
160047	MON INSTRUMENTS ON	3R	62	0	10CP1	3S	04	0	10CP2
	FINAL APP	3R	63	0	10CP1	3A	10	0	10CP2
		3H	07	0	10CP1	3L	02	0	10CP2
160048	MON ADF/RMI-2	5E	26	0	10CP1				10
160049	MON RADIO ALTIMETER	3J	01	0	10CP1				10
160050	RECEIVE INSTRUCTIONS	1B	18	0	10 *4	1P160034		0	10 *1
	TO SLOW TO 150	1B	14	4	10CP2	1B	15	4	10CP2
		1P160035		4	10CP1				10
160051	REDUCE SPEED TO 150 KIAS	4B	07	0	10 P2	3A	01	0	10 P1
					10				10
160052	REACH 150 KIAS	3A	01	0	10 P1	4B	07	0	10 P2
160053	SET FLAPS TO FLAPS	1P160070		0	10 P1	4E	12	1	10CP1
	25	1P160070		5	10CP1				10
160054	ACQUIRE GLIDESLOPE	3R	60	2	10 P1	3R	60	0	10CP1
		1P160071		2.6	10CP1	1P	10	2.6	10 P1
		3V	09	4.58	10 P1				10
160055	RECEIVE INSTRUCTIONS	1B	18	0	10 *4	1P160036		0	10 *1
	TO MAINTAIN CURRENT	1B	14	8	10CP4	1B	20	8	10CP3
	SPEED	1P160037		8	10CP1				10
160056	BEGIN DECELERATION	1P160072		0	10CP1	1P	10	0	10 P1
	TO 135 KNOTS -	4B	07	1	10 P2	3A	01	1	10 P1
160057	SET FLAPS TO FLAPS	1P160073		0	10 P1	4E	14	1	10CP1
	40	1P160073		5	10CP1				10
160058	REPORT RUNWAY IN	8A	01	0	10CP1	1P160074		2	10CP1
	SIGHT	1P	10	2	10 P1	8A	06	2	10 P3
160059	CROSS RWY 08 OUTER	3V	11	0	10 P2	1P160075		2	10 P1
	MARKER	1P	13	2	10CP4	3N	03	0	10 P1
160060	EXTEND LANDING GEAR	4D	03	0	10CP3	4D	05	3	10CP2
		4D	09	3.5	10CP3				10
160061	CONTACT TOWER FOR	1B	05	0	10CP4	1B	25	2.4	10CP1
	FINAL LANDING CLEAR-	1B	17	2.4	10CP2	1P160038		6.4	10CP1
	ANCE	1B	19	10.4	10 *2	1P160040		10.4	10 *1
		1P160041		14.4	10 *1	1B	29	17.4	10CP1
		1B	15	17.4	10CP4	1P160037		17.4	10CP1
160062	LANDING CHECKLIST	8B090001		0	10CP1	1P160076		2	10CP1
		1P	10	2	10 P4	1P160077		2.6	10CP1
		1P	14	2.6	10 P2	8B090001		3	10CP1
		1P160078		5	10CP1	1P	10	5	10 P2
		1P160079		6	10 P1	1P	02	6	10CP4
		8B090001		7.5	10CP1	1P160080		9.5	10CP1
		1P	10	9.5	10 P2	1P160081		10.2	10CP1
		1P	10	10.2	10 P1	8B090001		11.2	10CP1
		1P160082		13.2	10CP1	1P	14	13.2	10 P2
		1P160083		13.6	10CP1	1P	12	13.6	10 P4
		1P160084		16.1	10CP1	1P	12	16.1	10CP4
160063	DESCEND THRU 500 FT ABOVE RWY	1P160085		0	10CP1	1P	14	0	10 P3
					10				10
160064	CROSS RWY 08 MIDDLE MARKER	3V	13	0	10 P1	3V	13	0	10CP1
					10				10

160065	DESCEND THRU	3R	12	0	10CP3	1P160086		2.58	10CP1
	-DECISION HEIGTH	1P	11	2.58	10 P2				10
160066	CONTROL AIRCRAFT	4A	68	0	10 P1				
	THRU TOUCHDOWN				10				10
160067	CROSS END OF RWY 08				10				10
160068	TOUCHDOWN	4B	08	0	10 P1	4A	31	0	10 P1
		4C	01	2.5	10 P2	4C	02	24	10 P1
		4F	01	28	10 P3	4M	04	0	10 P4
		8A	02	0	10 P1				10
160069	SET SPEED BRAKES	4F	02	0	10 P3	4F	07	0	10 P2
160070	SET AUTO BRAKES	4D	43	0	10CP1	4D	40	2.62	10CP1
160071	HANDOFF TO GROUND	1B	18	0	10 *3	1P160087		0	10 *1
	CONTROL -121.9	1P160088		3.5	10 *1	1B	14	6	10CP2
		1B	15	6	10CP2	1P160089		6	10CP1
		1B	01	9	10CP3	1B	02	9	10CP2
		1B	03	11.88	10CP1	1B	05	14	10CP1
		1B	29	15.50	10CP2	1B	16	15.5	10CP3
		1P160090		15.5	10CP1	1B	18	20	10 *4
		1P160091		20	10 *1	1P160092		23.5	10 *1
		1B	29	25	10CP1	1B	15	25	10CP4
		1P160037		25	10CP1				10
160072	CONTROL AIRCRAFT ON	3R	16	0	10 P4	3S	04	0	10 P4
	FINAL APP - B(248)	4A	30	0	10 P4	3A	14	0	10 P3
		3L	04	0	10 P4	3H	07	0	10 P2
		3N	05	0	10 P3				
160073	CONTROL A/C ON FINAL	4A	30	0	10 P1	3R	61	0	10 P2
	APPROACH - C (5)	3S	04	0	10 P2	3A	10	0	10 P2
		3L	02	0	10 P2	3H	07	0	10 P1
		3N	05	0	10 P1				
160074	SET AUTO BRAKES	4D	43	0	10 P1	4D	40	2.62	10 P1
160075	MAN CNTRL A/C	4A	31	80	10 P4	8A	08	80	10 P4
160076	CAPTURE LOC	3R	59	0	10CP1	1P160067		0	10CP1
		1P	02	2.6	10 P1	3V	06	2.0	10 P2
160077	MON INSTRUMENTS ON	3R	62	0	10CP3	3S	17	0	10CP1
	FINAL APP - CP	3R	63	0	10CP3	3A	10	0	10CP3
		3H	06	0	10CP3	3L	02	0	10CP3
160078	MON INSTRUMENTS ON	3R	62	0	10CP4	3S	15	0	10CP1
	FINAL APP - CP	3R	63	0	10CP4	3A	10	0	10CP4
		3H	06	0	10CP4	3L	02	0	10CP4
160079	MON INSTRUMENTS ON	3R	62	0	10 P2	3S	01	0	10 P2
	FINAL APP - P	3R	63	0	10 P2	3A	10	0	10 P1
		3H	06	0	10 P2	3L	02	0	10 P1
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16FB13	CP SELECT VHF-3	1B 05	0	10CP1				10
16FB14	TURN COMPLETE			10				10
16FB15	MANUAL GEAR EXTEND	1P16FB17	0	10 P1	1P	02	0	10CP1
	PROCEDURE	8B 02	0	10CP3	8B	05	5.9	10CP2
		8B 03	10.9	10CP1	1P16FB18		12.9	10CP1
		1P 10	12.9	10 P1	8B	03	14.17	10CP1
		1P16FB19	16.17	10CP1	1P	12	16.17	10 P2
		4D 14	16.17	10CP1	4D	16	19.67	10CP1
		4D 11	20.37	10CP1	4D	17	21.17	10CP1
		4D 07	21.97	10CP1	4D	18	22.77	10CP1
		4D 11	23.57	10CP1	8B	03	25.57	10CP1
		4D 06	26.17	10CP1	4D	03	27.57	10CP1
		4D 09	27.57	10CP3	4D	08	30.84	10CP1
		4D 12	30.84	10CP1	1P16FB20		32.84	10CP1
		1P 10	32.84	10 P3	4D	15	34.04	10CP1
170001	RECEIVE INSTRUCTIONS	1B 37	0	10 *2	1P170001		0	10 *1
	TO SLOW TO 200 KIAS	1B 26	4	10CP2	1B	32	4	10CP2
		1P170002	4	10CP1				10
170002	ADJUST THRUST	4B 07	0	10 P2				10
170003	REACH 210 KIAS			10				10
170004	REACH 200 KIAS			10				10
170005	CROSS NORCROSS VOR.	1B 37	0	10 *4	1P170003		0	10 *1
	RECEIVE INSTRUCTIONS	1B 24	4	10CP2	1B	16	4	10CP4
	TO TURN TO HDG 210.	1P170004	4	10CP1				10

170006	TURN COMPLETED - ON HDG 210					10			10
						10			10
170007	TUNE NAV RADIOS FOR MLS APPROACH.	8B	06	0	10CP1	8B160003		6	10CP1
		5U	01	11	10CP3	5U	02	11	10CP3
		5U	03	14	10CP2	5V	01	44	10CP3
		5V	02	44	10CP2	5V	03	46.93	10CP1
		1P170026		49	10CP1	1P	02	49	10 P3
		5G	04	52	10 P1	5G	05	52	10 P1
		5H	02	49	10CP1	5H	03	49	10CP1
170008	RECEIVE INSTRUCTIONS TO TURN, REDUCE SPD, AND DESCEND.	1B	19	0	10 *2	1P170005		0	10 *1
		1P170006		3.5	10 *1	1B	26	7	10CP4
		1B	32	7	10CP4	1P170007		7	10CP1
		1P170008		11	10CP1				10
170009	BEGIN TURN TO HDG 270				10				10
					10				10
170010	TURN COMPLETED - ON HDG 270. BEGIN DE-CELERATION	4B	07	0	10 P2				10
					10				10
170011	REACH 190 KIAS				10				10
170012	REACH 180 KIAS. BEGIN DESCENT TO 6000 FT				10				10
					10				10
					10				10
170013	LEVEL OFF AT 6000 FT				10				10
170014	MLS ACQUISTION	3R	59	0	10CP1	1P160067		2.5	10CP1
		1P	02	2.5	10 P4				10
170015	RECEIVE INSTRUCTIONS TO TURN TO HDG 180, DESCEND TO 3600 FT.	1B	18	0	10 *3	1P170009		0	10 *1
		1B	25	6	10CP2	1B	17	6	10CP3
		1P170011		6	10CP1	1P170012		9.5	10CP1
170016	BEGIN TURN TO HDG 180 AND DESCENT TO 3600 FT.				10				10
					10				10
					10				10
170017	TURN COMPLETED - ON HDG 180				10				10
					10				10
170018	LEVEL OFF AT 3600 FT				10				10
170019	RECEIVE INSTRUCTIONS TO REDUCE SPEED TO 160 KIAS	1B	18	0	10 *4	1P170013		0	10 *1
		1B	26	4	10CP2	1B	32	4	10CP2
		1P170014		4	10CP1				10
170020	REACH 170 KIAS				10				10
170021	RECEIVE FINAL CLEAR-ANCE	1B	19	0	10 *4	1P170015		0	10 *1
		1P170016		3	10 *1	1P170017		7	10 *1
		1B	25	10	10CP1	1B	17	10	10CP2
		1P170018		10	10CP1	1P170019		14	10CP1
		1B	07	15	10CP3	1B	08	15	10CP2
		1B	09	17.88	10CP1				10
170022	BEGIN RUNWAY 08 CENTERLINE ACQUISI-TION TURN	3R	16	0	10 P2	3S	01	0	10 P2
		4A	28	0	10 P2	3S	11	5	10 P2
		3R	16	10	10 P3	3S	01	10	10 P2
		4A	28	10	10 P2	3R	16	20	10 P2
		3S	01	20	10 P2	4A	28	20	10 P2
		3R	16	30	10 P3	3S	01	30	10 P2
		4A	28	30	10 P2	3R	16	40	10 P3
		3S	01	40	10 P2	4A	28	40	10 P2
170023	RECEIVE INSTRUCTIONS TO MAINTAIN SPEED	1B	32	0	10 *1	1P170020		0	10 *1
		1P170021		3.5	10 *1	1B	14	4.5	10CP4
		1B	15	4.5	10CP4	1P160037		4.5	10CP1
170024	TURN COMPLETED -				10				10
170025	CROSS APPROACH GATE. BEGIN DECELERATION.	4B	07	0	10 P2				10
					10				10
170026	CONTACT TOWER	1B	06	0	10CP4	1B	28	2.39	10CP1
		1B	17	2.39	10CP2	1P170022		2.39	10CP1

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					1P170023	6.39	10CP1	1B	19	8	10 *2
					1P170024	8	10 *1	1P170025		11.50	10 *1
170027	BEGIN 6 DEG FIRST SEGMENT MLS APPROCH DESCENT						10				10
							10				10
							10				10
170028	REACH 135 KIAS						10				10
170029	BEGIN TRANSITION TO 3 DEG SECOND SEGMENT MLS APPROCH DESCENT						10				10
							10				10
							10				10
170030	COMPLETE TRANSITION						10				10
170031	CONTROL AIRCRAFT ON FINAL APP -180	4A	69		0		10	P1 2J	02	0	10 P4
		3L	04		0		10	P3 3A	14	0	10 P2
		2J	05		0		10	P4 2J	19	0	10 P4
		2K	14		0		10	P4 2K	46	0	10 P3
		2K	33		0		10	P3 2J	01	0	10 P4
170032	CONTROL AIRCRAFT ON FINAL APP -30	4A	69		0		10	P3 2J	02	0	10 P3
		3L	02		0		10	P3 3A	10	0	10 P3
		2J	05		0		10	P3 2J	19	0	10 P3
		2K	14		0		10	P3 2K	46	0	10 P2
		2K	33		0		10	P2 2J	01	0	10 P3
170033	CONTROL AIRCRAFT ON FINAL APP -10	4A	30		0		10	P2 2J	02	0	10 P2
		3L	02		0		10	P1 3A	10	0	10 P1
		2J	05		0		10	P2 2J	19	0	10 P2
		2K	14		0		10	P2 2K	46	0	10 P1
		2K	33		0		10	P1 2J	01	0	10 P2
170034	CONTROL AIRCRAFT ON FINAL APP -60	4A	69		0		10	P4 2J	02	0	10 P3
		3L	02		0		10	P4 3A	10	0	10 P4
		2J	04		0		10	P4 2J	19	0	10 P3
		2K	15		0		10	P2 2K	46	0	10 P4
		2K	33		0		10	P4 2J	01	0	10 P3
17EK00	PILOT INCAPACITATED						10				10
17EK01	ADVISE APPROACH CONTROL OF PILOT INCAPACITATION	1B	26		0		10CP3	1B	32	0	10CP3
		1P16EK01			0		10CP1	1P16EK07		3	10CP1
		1P16EK03			7		10CP1	1B	19	12	10CP4
		1P16EK04			12		10CP1	1P16EK08		15	10CP1
		1P16EK06			19		10CP1				10
17EK02	MLS ACQUISITION						10				10
17EK03	BEGIN TURN TO HDG 180 AND DESCENT TO 3600 FT						10				10
							10				10
							10				10
17EK04	TURN COMPLETED - ON HDG 180						10				10
							10				10
17EK05	LEVEL OFF AT 3600 FT						10				10
17EK06	REACH 170 KIAS						10				10
17EK07	BEGIN RUNWAY CENTERLINE ACQUISITION TURN	3R	16		0		10CP3	3S	04	0	10CP3
		4A	28		0		10CP2	3S	11	5	10CP3
		3R	16		10		10CP3	3S	04	10	10CP3
		4A	74		10		10CP2	3R	16	20	10CP3
		3S	04		20		10CP3	4A	74	20	10CP2
		3R	16		30		10CP3	3S	04	30	10CP3
		4A	74		30		10CP2	3R	16	40	10CP3
		3S	04		40		10CP3	4A	74	40	10CP2
17EK08	TURN COMPLETED						10				10
17EK09	CONTROL AIRCRAFT ON FINAL APPROACH - X	3R	61		0		10CP1	3S	17	0	10CP3
		4A	69		0		10CP2				10
17EK10	CROSS APPROACH GATE. BEGIN DECELERATION.	4B	07		0		10CP1				10
							10				10
17EK11	BEGIN 6 DEG FIRST SEGMENT MLS APPROACH DESCENT						10				10
							10				10

17EK12	REACH 135 KIAS				10				10
17EK13	BEGIN TRANSITION TO				10				10
	3 DEG SECOND SEGMENT				10				10
	MLS APPROACH DESCENT				10				10
17EK14	COMPLETE TRANSITION				10				10
17EK15	500 FT ABOVE RUNWAY				10				10
17EK16	CROSS END OF RUNWAY				10				10
17EK17	TOUCHDOWN				10				10
17EK18	RECEIVE INSTRUCTIONS	1B	18	0	10CP3	1P170009		0	10CP1
	TO TURN TO HDG 180,	1B	25	6	10CP2	1B	17	6	10CP3
	DESCEND TO 3600 FT.	1P170011		6	10CP1	1P170012		9.5	10CP1
17EK19	RECEIVE INSTRUCTIONS	1B	18	0	10CP1	1P170013		0	10CP1
	TO REDUCE SPEED TO	1B	26	4	10CP2	1B	32	4	10CP2
	160 KIAS	1P170014		4	10CP1				10
17EK20	RECEIVE FINAL CLEAR-	1B	19	0	10CP4	1P170015		0	10CP1
	ANCE	1P170016		3	10CP1	1P170017		7	10CP1
		1B	25	10	10CP1	1B	17	10	10CP2
		1P170018		10	10CP1	1P170019		14	10CP1
		1B	07	15	10CP3	1B	08	15	10CP2
		1B	09	17.88	10CP1				10
17EK21	RECEIVE INSTRUCTIONS	1B	32	0	10CP1	1P170020		0	10CP1
	TO MAINTAIN SPEED	1P170021		3.5	10CP1	1B	14	4.5	10CP4
		1B	15	4.5	10CP4	1P160037		4.5	10CP1
17EK22	CONTACT TOWER	1B	06	0	10CP4	1B	28	2.39	10CP1
		1B	17	2.39	10CP2	1P170022		2.39	10CP1
		1P170023		6.39	10CP1	1B	19	8	10CP2
		1P170024		8	10CP1	1P170025		11.50	10CP1
180001	TUNE ATLANTA	1R	07	0	10CP3	1R	08	0	10CP4
	APPROACH CONTROL	1R	09	2.9	10CP2				10
	-126.9				10				10
180002	TUNE ATIS -123.7	1Q	07	0	10CP4	1Q	08	0	10CP4
		1Q	09	2.97	10CP2	1Q	06	4.94	10CP2
		1Q	12	6.39	10CP2	1Q	30	9	10 *3
		1P160001		9	10 *1	1P160002		12.42	10 *1
		1P160003		16.98	10 *1	1P160004		21.54	10 *1
		1P160005		26.1	10 *1	1P	06	31	10 *1
180003					10				10
180004	SET NAV-3 TO ATLANTA	5Y	01	0	10CP3	5Y	02	0	10CP2
	VOR -115.6	5Y	03	3.12	10CP2	5Y	05	4.7	10CP1
180005	CROSS WPT STAR01.				10				10
	AGCS BEGINS PROGRAM-				10				10
	MED TURN TO HDG 220				10				10
	AND DECELERATION TO				10				10
	200 KIAS				10				10
180006	TURN COMPLETED - ON				10				10
	HDG 220				10				10
180007	REACH 210 KIAS				10				10
180008	REACH 200 KIAS				10				10
180009	HANDOFF TO APPROACH	1R	16	0	10 *4	1P160016		0	10 *1
	CONTROL -127.25	1P160017		4	10 *1	1R	25	5	10CP3
		1R	37	5	10CP4	1P160018		5	10CP1
		1R	01	8	10CP3	1R	02	8	10CP2
		1R	03	10.93	10CP2	1R	05	12.51	10CP1
		1R	28	14	10CP1	1R	40	14	10CP2
		1P160019		14	10CP1	1P160020		17.5	10CP1
		1R	16	18.5	10 *2	1P160021		18.5	10 *1
		1N	07	22	10CP1				10
180010	CROSS WPT STAR02.				10				10
	AGCS BEGINS PROGRAM-				10				10
	MED TURN TO HDG 270				10				10

	AND DECELERATION TO				10					10
	170 KIAS				10					10
180011	TURN COMPLETED -ON				10					10
	HDG 270.				10					10
180012	REACH 170 KIAS. AGCS				10					10
	BEGINS PROGRAMMED				10					10
	DESCENT TO 4500 FT.				10					10
180013	SET NAV-1 TO RWY 08	5W	01	0	10CP3	5W	02	0		10CP2
	ILS -109.9	5W	03	2.37	10CP2					10
180014	SET NAV-2 TO RWY 08	5X	01	0	10CP3	5X	02	0		10CP2
	ILS -109.9	5X	03	2.95	10CP2					10
180015	SET NAV-3 TO RWY 08	5Y	01	0	10CP3	5Y	02	0		10CP2
	ILS -109.9	5Y	03	3.12	10CP2					10
180016	DESCEND THRU 10000	7G	17	0	10CP2					10
	FT				10					10
180017	LEVEL OFF AT 4500 FT				10					10
180018	SET DECISION HEIGHT	2J	20	0	10CP1	2J	21	00		10CP2
	ON EADI				10					10
180019	AGCS BEGINS PROGRAM-				10					10
	MED DECELERATION TO				10					10
	160 KIAS				10					10
180020	REACH 160 KIAS				10					10
180021	AGCS BEGINS PROGRAM-				10					10
	MED TURN TO HDG 180				10					10
180022	TURN COMPLETED - ON				10					10
	HDG 180.				10					10
180023	RECEIVE INSTRUCTIONS	1R	16	0	10 *1	1P180004		0		10 *1
	FROM ATC	1P180005		4	10 *1	1R	24	6		10CP4
		1R	15	6	10CP4	1P180006		6		10CP1
		1R	07	10	10CP3	1R	08	10		10CP4
		1R	09	12.9	10CP2					10
180024	AGCS BEGINS PROGRAM-				10					10
	MED TURN TO HDG 120				10					10
180025	TURN COMPLETED - ON				10					10
	HDG 120				10					10
180026	AGCS BEGINS PROGRAM-				10					10
	MED TURN TO HDG 090				10					10
180027	CAPTURE LOCALIZER	2J	09	0	10CP1	1P160067		2		10CP1
		1P	02	2	10 P4					10
180028	TURN COMPLETED - ON				10					10
	HDG 090 - FINAL APP				10					10
180029	AGCS BEGINS PROGRAM-				10					10
	MED DECELERATION TO				10					10
	150 KIAS				10					10
180030	REACH 150 KIAS				10					10
180031	ACQUIRE GLIDE SLOPE	3V	09	0	10 P2					10
180032	CROSS STUBBS. AGCS	1P160072		0	10CP1	1P	10	0		10 P1
	BEGINS PROGRAMMED				10					10
	DECELERATION TO 135				10					10
	KIAS				10					10
180033	SET AGCS TO AUTO	2H	10	0	10 P1	2H	11	2.13		10 P1
	LAND MODE	2H	51	3.18	10 P1	2J	13	3.96		10 P1
180034	CONTACT TOWER FOR	1R	06	0	10CP3	1R	26	2		10CP2
	FINAL LANDING CLEAR-	1R	38	2	10CP3	1P160038		2		10CP1
	ANCE.	1P160039		6	10CP1	1R	32	8		10 *4
		1P160040		8	10 *1	1P160041		12		10 *1
		1R	27	15	10CP2	1R	36	15		10CP4
		1P160037		15	10CP1					10
180035	CROSS END OF RUNWAY				10					10
180036	TOUCHDOWN AND ROLL-	8A	11	00	10CP2	2J	15	00		10CP2

	OUT, AGCS AUTO LAND	2J	40	00	10CP2	2J	41	00	10CP2
	MODE CONTROLS A/C	7F	25	00	10CP3	7F	30	00	10CP4
	UNTILL 30KTS				10				10
180037	DISENGAGE AGCS	2H	10	0	10CP1	2H	13	2.13	10CP1
		2H	01	3.18	10CP2	2H	02	4.62	10CP1
		2H	09	5.67	10CP1	4A	64	0	10CP2
		4A	64	10	10CP3				10
180038	HANDOFF TO GROUND	1R	32	0	10 *2	1P160087		0	10 *1
	CONTROL -121.9	1P160088		3.5	10 *1	1R	73	6	10CP3
		1R	36	6	10CP2	1P160089		6	10CP1
		1R	01	9	10CP3	1R	02	9	10CP2
		1R	03	11.93	10CP2	1R	05	13.51	10CP2
		1R	14	15	10CP4	1R	15	15	10CP3
		1P160090		15	10CP1	1R	34	19	10 *4
		1P160091		19	10 *1	1P160092		22.50	10 *1
		1R	27	24	10CP2	1R	36	24	10CP4
		1P160037		24	10CP1				10
180039	SET EADI FOR ILS	2J	32	0	10 P1	2J	35	2.15	10 P1
	APPROACH	2J	31	4.41	10 P1	2J	33	5.76	10 P2
		2J	18	7.11	10 P1				10
180040	SET EADI FOR STATUS	2J	32	0	10 P1	2J	35	2.15	10 P1
	APPROACH	2J	29	4.41	10 P1	2J	33	5.76	10 P2
		2J	18	7.11	10 P1				10
180041	FLIGHT INSTRUMENT	2K	14	0	10 P2	2K	46	0	10 P1
	SCAN -A1, PILOT	2K	33	0	10 P1	2J	13	0	10 P2
		2J	14	0	10 P2	2J	01	0	10 P2
		2J	19	0	10 P2	3A	10	0	10 P1
180042	FLIGHT INSTRUMENT	2K	14	0	10 P3	2K	46	0	10 P2
	SCAN -A2, PILOT	2K	33	0	10 P2	2J	13	0	10 P3
		2J	14	0	10 P3	2J	01	0	10 P3
		2J	19	0	10 P3	3A	10	0	10 P3
180043	FLIGHT INSTRUMENT	2J	15	0	10 P2	2J	13	0	10 P3
	SCAN - FINAL APP	2J	14	0	10 P3	2J	01	0	10 P3
		2J	38	0	10 P3	2J	39	0	10 P3
		2J	19	0	10 P3	3A	10	0	10 P3
		7F	33	0	10 P3	7F	34	0	10 P3
180044	FLIGHT INSTRUMENT	2K	14	0	10CP2	2K	46	0	10CP1
	SCAN -A1, COPILOT	2K	33	0	10CP1	2J	13	0	10CP2
		2J	14	0	10CP2	2J	01	0	10CP2
		2J	19	0	10CP2	3A	10	0	10CP1
180045	FLIGHT INSTRUMENT	2K	14	0	10CP3	2K	46	0	10CP2
	SCAN -A2, COPILOT	2K	33	0	10CP2	2J	13	0	10CP3
		2J	14	0	10CP3	2J	01	0	10CP3
		2J	19	0	10CP3	3A	10	0	10CP3
180046	FLIGHT INSTRUMENT	2K	14	0	10 P4	2K	46	0	10 P3
	SCAN -A1, PILOT	2K	33	0	10 P3	2J	13	0	10 P4
		2J	14	0	10 P4	2J	01	0	10 P4
		2J	19	0	10 P4	3A	14	0	10 P2
180047	FLIGHT INSTRUMENT	2K	14	0	10CP4	2K	46	0	10CP3
	SCAN -A1, COPILOT	2K	33	0	10CP3	2J	13	0	10CP4
		2J	14	0	10CP4	2J	01	0	10CP4
		2J	19	0	10CP4	3A	14	0	10CP2
180050	REACH 190 KIAS				10				10
180051	REACH 180 KIAS, AGCS				10				10
	BEGINS PROGRAMMED				10				10
	DESCENT TO 6000 FT				10				10
180052	DESCEND THRU 10000	7G	17	0	10CP2				10
	FT				10				10
180053	LEVEL OFF AT 6000 FT				10				10
180054	SET NAV-1 TO RWY 08	5W	01	0	10CP3	5W	02	0	10CP2

	MLS	5W	03	2.37	10CP2					10
180055	SET NAV-2 TO RWY 08	5X	01	0	10CP3	5X	02	0		10CP2
	MLS	5X	03	2.95	10CP2					10
180056	SET NAV-3 TO RWY 08	5Y	01	0	10CP3	5Y	02	0		10CP2
	MLS	5Y	03	3.12	10CP2					10
180057	CROSS WPT STAR03.				10					10
	AGCS BEGINS PROGRAM-				10					10
	MED TURN TO HDG 180				10					10
	AND DESCENT TO 3600				10					10
	FT				10					10
180058	TURN COMPLETED - ON				10					10
	HDG 180				10					10
180059	LEVEL OFF AT 3600FT				10					10
	AGCS BEGINS PROGRAM-				10					10
	MED DECELERATION TO				10					10
	160 KIAS				10					10
180060	REACH 170 KIAS				10					10
180061	REACH 160 KIAS				10					10
180062	AGCS BEGINS PROGRAM-				10					10
	MED TURN TO HDG 090.				10					10
180063	TURN COMPLETED - ON				10					10
	HDG 090. CROSS WPT				10					10
	STAR04 -LAKESIDE				10					10
	AGCS BEGINS PROGRAM-				10					10
	MED DECELERATION TO				10					10
	135 KIAS.				10					10
180064	HANDOFF TO ATLANTA	1R	34	0	10 *4	1P180001		0		10 *1
	TOWER -119.5	1P180002		4	10 *1	1R	37	5		10CP4
		1R	25	5	10CP3	1P180003		5		10CP1
					10	1R	07	15		10CP3
		1R	08	15	10CP4	1R	09	17.9		10CP2
		1R	06	19.48	10CP2	1R	28	21		10CP2
		1R	38	21	10CP3	1P160038		21		10CP1
		1P160039		25	10CP1	1R	32	25		10 *4
		1P160040		25	10 *1	1P160041		30		10 *1
180065	BEGIN 6 DEG FIRST				10					10
	SEGMENT MLS APPROACH				10					10
	DESCENT.				10					10
180066	REACH 135 KIAS				10					10
180067	TRANSITION TO 3 DEG				10					10
	SECOND SEGMENT MLS				10					10
	APPROACH DESCENT				10					10
180068	TRANSITION COMPLETE.				10					10
	REACH 130 KIAS.				10					10
180069	CROSS END OF RWY 08				10					10
	-WPT STAR05				10					10
180070	FLIGHT INSTRUMENT	2K	14	0	10 P2	2K	46	0		10 P1
	SCAN -A1, PILOT	2K	33	0	10 P1	2J	05	0		10 P2
		2J	04	0	10 P2	2J	01	0		10 P2
		2J	19	0	10 P2	3A	10	0		10 P1
180071	FLIGHT INSTRUMENT	2K	14	0	10 P3					
	SCAN -A2, PILOT	2K	33	0	10 P2	2J	13	0		10 P3
		2J	04	0	10 P3	2J	01	0		10 P3
		2J	19	0	10 P3	3A	10	0		10 P3
180072	FLIGHT INSTRUMENT	2J	15	0	10 P2	2J	05	0		10 P3
	SCAN - FINAL APP	2J	04	0	10 P3	2J	01	0		10 P3
		2J	38	0	10 P3	2J	39	0		10 P3
		2J	19	0	10 P3	3A	10	0		10 P3
180073	FLIGHT INSTRUMENT	2K	14	0	10CP2	2K	46	0		10CP1
	SCAN -A1, COPILOT	2K	33	0	10CP1	2J	05	0		10CP2

		2J	04	0	10CP2	2J	01	0	10CP2
		2J	19	0	10CP2	3A	10	0	10CP1
180074	FLIGHT INSTRUMENT	2K	14	0	10CP3	2K	46	0	10CP2
	SCAN -A2, COPILOT	2K	33	0	10CP2	2J	05	0	10CP3
		2J	04	0	10CP3	2J	01	0	10CP3
		2J	19	0	10CP3	3A	10	0	10CP3
180075	FLIGHT INSTRUMENT	2K	14	0	10 P4	2K	46	0	10 P3
	SCAN -A1, PILOT	2K	33	0	10 P3	2J	05	0	10 P4
		2J	04	0	10 P4	2J	01	0	10 P4
		2J	19	0	10 P4	3A	14	0	10 P2
180076	FLIGHT INSTRUMENT	2K	14	0	10CP4	2K	46	0	10CP3
	SCAN -A1, COPILOT	2K	33	0	10CP3	2J	05	0	10CP4
		2J	04	0	10CP4	2J	01	0	10CP4
		2J	19	0	10CP4	3A	14	0	10CP2
18EK00	PILOT INCAPACITATED				10				10
18EK01	RECEIVE INSTRUCTIONS	1R	16	0	10CP1	1P180004		0	10CP1
	FROM ATC	1P180005		4	10CP1	1R	24	6	10CP4
		1R	15	6	10CP4	1P180006		6	10CP1
		1R	07	10	10CP3	1R	08	10	10CP4
		1R	09	12.9	10CP2				10
18EK02	CONTACT TOWER FOR	1R	06	0	10CP3	1R	26	2	10CP2
	FINAL LANDING CLEAR-	1R	38	2	10CP3	1P160038		2	10CP1
	ANCE.	1P160039		6	10CP1	1R	32	8	10CP4
		1P160040		8	10CP1	1P160041		12	10CP1
		1R	27	15	10CP2	1R	36	15	10CP4
		1P160037		15	10CP1				10
18EK03	HANDOFF TO GROUND	1R	32	0	10CP2	1P160087		0	10CP1
	CONTROL -121.9	1P160088		3.5	10CP1	1R	23	6	10CP3
		1R	36	6	10CP2	1P160089		6	10CP1
		1R	01	9	10CP3	1R	02	9	10CP2
		1R	03	11.93	10CP2	1R	05	13.51	10CP2
		1R	14	15	10CP4	1R	15	15	10CP3
		1P160090		15	10CP1	1R	34	19	10CP4
		1P160091		19	10CP1	1P160092		22.50	10CP1
		1R	27	24	10CP2	1R	36	24	10CP4
		1P160037		24	10CP1				10
18EK04	HANDOFF TO ATLANTA	1R	34	0	10CP4	1P180001		0	10CP1
	TOWER -119.5	1P180002		4	10CP1	1R	37	5	10CP4
		1R	25	5	10CP3	1P180003		5	10CP1
					10	1R	07	15	10CP3
		1R	08	15	10CP4	1R	09	17.9	10CP2
		1R	06	19.48	10CP2	1R	28	21	10CP2
		1R	38	21	10CP3	1P160038		21	10CP1
		1P160039		25	10CP1	1R	32	25	10CP4
		1P160040		25	10CP1	1P160041		30	10CP1
18EK05	FLIGHT INSTRUMENT	2J	15	0	10CP2	2J	05	0	10CP3
	SCAN - FINAL APP	2J	04	0	10CP3	2J	01	0	10CP3
		2J	38	0	10CP3	2J	39	0	10CP3
		2J	19	0	10CP3	3A	10	0	10CP3
		7F	33	0	10CP3	7F	34	0	10CP3
200001	SHUTDOWN PROCEDURE-1	4B	08	0	10 P1	4D	27	2.5	10 P1
		4D	29	5	10 P3	7L	01	5.25	10 P1
		7L	02	7.34	10 P1	7B	25	9.43	10 P1
		7M	08	10.06	10 P3	7M	10	13.30	10 P2
		7F	31	15.81	10 P1	7F	32	17.83	10 P2
		7F	33	17.83	10 P2	7F	34	18.27	10 P2
		7G	06	18.71	10 P1	7C	25	20.40	10 P1
		7C	27	21.37	10 P1	7C	31	23.32	10 P1
		7C	35	25.29	10 P1	7C	39	26.75	10 P1
		7C	43	28.20	10 P2				10

200002	SHUTDOWN PROCEDURE-2	7B	71	0	10	P2	7G	34	1.0	10	P1
		7K	08	2.9	10	P1	7K	12	7.12	10	P1
		7J	25	8.26	10	P3	7J	27	9.68	10	P1
		7J	29	12.43	10	P4	7J	31	13.56	10	P1
		7J	33	14.69	10	P1	7J	35	15.82	10	P1
		7J	03	16.96	10	P3	7J	09	18.75	10	P4
		7J	11	20.25	10	P4				10	
200003	SHUTDOWN PROCEDURE-3	7A	06	0	10	P3	7A	08	1.46	10	P3
		7A	11	2.92	10	P1	7A	13	3.47	10	P1
		7D	03	4.02	10	P2	7D	32	6.72	10	P3
		7D	20	8.25	10	P2	7D	21	10.25	10	P1
		7D	15	11.25	10	P2	7D	17	12.78	10	P2
		7D	27	14.31	10	P2	7G	26	15.84	10	P1
		4D	41	18.28	10	P2	1F	07	20.90	10	P1
		1F	06	23.34	10	P3	1H	01	25.33	10	P1
		1F	09	27.70	10	P3	1P200040		29.20	10	P1
		1B	29	32.20	10	P4	1F	11	33.50	10	P3
		1P200041		33.50	10	P1	1F	09	38	10	*1
		1P200042		38	10	*1	4D	51	39	10	P1
		7Q	01	41	10	P1	7H	14	43.66	10	P1
		7H	11	45.06	10	P1	1P200005		47	10	P1
		1P	10	47	10	CP3				10	
200005	SHUTDOWN CHECKLIST-1	8B	02	0	10	CP1	8B	03	4	10	CP1
		1P200006		6	10	CP1	1P	10	6	10	P2
		7C	71	6.7	10	P1	1P200007		8.3	10	P1
		1P	07	8.3	10	CP4	8B	03	9.1	10	CP1
		1P200008		11.1	10	CP1	1P	11	11.1	10	P3
		7B	94	12	10	P1	1P200009		13.44	10	P1
		1P	06	13.44	10	CP4	8B	03	14	10	CP1
		1P200010		16	10	CP1	1P	10	16	10	CP1
		1P200011		17	10	P1	1P	07	17	10	CP2
200006	SHUTDOWN CHECKLIST-2	8B	03	0	10	CP1	1P200012		2	10	CP1
		1P	12	2	10	P4	7G	49	3.1	10	P1
		1P200009		4.38	10	P1	1P	06	4.38	10	CP4
		8B	03	5	10	CP1	1P200013		7	10	CP1
		1P	10	7	10	P3	7G	50	8.2	10	P1
		1P200009		9.5	10	P1	1P	06	9.5	10	CP4
		8B	03	10	10	CP1	1P200014		12	10	CP1
		1P	10	12	10	P1	7K	12	13	10	P1
		1P200009		14.2	10	P1	1P	06	14.2	10	CP4
200007	SHUTDOWN CHECKLIST-3	8B	03	0	10	CP1	1P200015		2	10	CP1
		1P	10	2	10	P1	7J	47	3	10	P1
		7J	48	4.47	10	P1	1P200009		5.22	10	P1
		1P	06	5.22	10	CP4	8B	03	5.72	10	CP1
		1P200016		7.72	10	CP1	1P	10	7.72	10	P3
		7J	49	8.92	10	P1	7J	50	10.34	10	P1
		1P200009		11.10	10	P1	1P	06	11.1	10	CP4
		8B	03	11.6	10	CP1	1P200017		13.6	10	CP1
		1P	02	13.6	10	P1	7A	11	15.1	10	P1
		7A	13	15.65	10	P1	1P200009		16.2	10	P1
		1P	06	16.2	10	CP4	8B	03	17	10	CP1
		1P200018		19	10	CP1	1P	14	19	10	P4
		7D	67	21.1	10	P1	7D	68	22.48	10	P1
		7D	64	23.22	10	P1	7D	65	24.53	10	P1
		7D	66	25.3	10	P1	7E	36	26.07	10	P1
		1P200019		26.6	10	P1	1P	16	26.6	10	CP3
200008	SHUTDOWN CHECKLIST-4	8B	03	0	10	CP1	1P200020		2	10	CP1
		1R	10	2	10	P3	1P200009		3.2	10	P1
		1P	06	3.2	10	CP3	8B	03	3.7	10	CP1
		1P200021		5.7	10	CP1	1P	10	5.7	10	P3

		7M	12	6.9	10 P2	7M	13	8.4	10 P2
		1P200009		9.2	10 P1	1P	06	9.2	10CP4
		8B	03	9.7	10CP1	1P200022		11.7	10CP1
		1P	10	11.7	10 P1	4D	49	12.7	10 P1
		1P200009		13.8	10 P1	1P	06	13.8	10CP4
		8B	03	14.3	10CP1	1P200023		16.3	10CP1
		1P	12	16.3	10 P2	6A	17	17.7	10 P1
		1N	18	19.87	10 P1	1P200009		20.93	10 P1
		1P	06	20.93	10CP4				10
200009	SHUTDOWN CHECKLIST-5	8B	03	0	10CP1	1P200024		2	10CP1
		1P	10	2	10 P1	4F	12	3	10 P1
		1P200030		5	10 P1	1P	08	5	10CP3
		8B	03	6.2	10CP1	1P200025		8.2	10CP1
		1P	11	8.2	10 P2	1P200029		9	10 P1
		1P	08	9	10CP4	8B	03	9.6	10CP1
		1P200026		11.6	10CP1	1P	10	11.6	10 P1
		1P200031		12.6	10 P1	1P	06	12.6	10CP3
		8B	03	13.6	10CP1	1P200027		15.6	10CP1
		1R	10	15.6	10 P1	1P200032		16.6	10 P1
		1P	08	16.6	10CP1	8B	03	17.5	10CP1
		1P200033		19.5	10CP1	1P	02	19.5	10 P1
		7H	01	21	10 P1	7H	02	23.81	10 P1
		1P200034		26	10 P1	1P	06	26	10CP1
		8B	03	28.5	10CP1	1P200035		30.5	10CP1
		1P	12	30.5	10 P1				10
200010	SECURING PROCEDURE	7D	06	0	10 P3	7L	11	2.65	10 P4
		8B200001		5	10 P1	7B	55	35	10 P2
		1P200039		38.3	10 P1	1P	10	38.3	10CP3
200011	SHUTDOWN CHECKLIST-6	8B	03	0	10CP1	1P200036		2	10CP1
		1P	10	2	10 P1	1P200009		3	10 P1
		1P	06	3	10CP4	8B	03	3.5	10CP1
		1P200037		5.5	10CP1	1P	10	5.5	10 P1
		1P200009		6.5	10 P1	1P	06	6.5	10CP4
		8B	03	7	10CP1	1P200038		9	10CP1
		1P	16	9	10 P4				10
200012	SCENARIO COMPLETED				10				10
20EK01	SHUTDOWN PROCEDURE - 1A	4B	08	0	10CP2	4D	27	2.5	10CP3
		4D	29	6	10CP4	7L	01	6.54	10CP1
		7L	02	8.63	10CP1	7B	25	10.72	10CP1
		7M	08	11.35	10CP4	7M	10	14.59	10CP3
		7F	31	17.1	10CP1	7F	32	19.12	10CP2
		7F	33	19.56	10CP2	7F	34	20	10CP2
		7G	06	20.44	10CP2	7C	25	22.15	10CP3
		7C	27	24.5	10CP3	7C	31	25.95	10CP4
		7C	35	27.54	10CP3	7C	39	28.93	10CP2
		7C	43	30.38	10CP2				10
20EK02	SHUTDOWN PROCEDURE-2A	7B	71	0	10CP3	7G	34	1.8	10CP3
		7K	08	3.7	10CP1	7K	12	7.92	10CP1
		7J	25	9.06	10CP2	7J	27	10.48	10CP2
		7J	29	11.90	10CP1	7J	31	13.03	10CP1
		7J	33	14.16	10CP1	7J	35	15.29	10CP1
		7J	37	16.43	10CP1	7J	39	17.57	10CP1
		7J	03	18.71	10CP1	7J	09	20.50	10CP1
		7J	11	22	10CP1				10
20EK03	SHUTDOWN PROCEDURE - 3A	7D	03	0	10CP1	7D	32	2.7	10CP1
		7D	20	4.47	10CP1	7D	21	7.07	10CP1
		7D	15	8.07	10CP1	7D	17	10.47	10CP1
		7D	27	12.87	10CP1	7G	26	15.47	10CP2
		1F	07	17.91	10CP3	1F	06	20.25	10CP1
		1H	01	23.11	10CP2	1F	09	27	10CP3

		1P200040		27	10CP1	1B	29	29	10CP4
		1F	11	29	10CP3	1P200041		29	10CP1
		1F	09	32	10CP1	1P200042		32	10CP1
		4D	51	33	10CP2	7Q	01	36	10CP3
		7H	14	39	10CP1	7H	11	42	10CP1
20EK05	PERFORM SHUTDOWN	8B	02	0	10CP1	8B	03	4	10CP1
	CHECKLIST - 1A	7C	71	6	10CP1	8B	03	7.59	10CP1
		7B	94	9.59	10CP1	8B	03	11	10CP1
		8B	03	13	10CP1	7G	49	15	10CP1
		8B	03	16.28	10CP1	7G	50	18.28	10CP1
		8B	03	19.56	10CP1	7K	12	21.56	10CP1
		8B	03	22.7	10CP1	7J	47	24.7	10CP1
		7J	48	26.17	10CP1	8B	03	26.92	10CP1
		7J	49	28.92	10CP1	7J	50	30.35	10CP1
20EK06	PERFORM SHUTDOWN	8B	03	0	10CP1	7A	11	2	10CP1
	CHECKLIST - 2A	7A	13	2.55	10CP1	8B	03	3.1	10CP1
		7D	67	5.1	10CP1	7D	68	6.45	10CP1
		7D	64	7.22	10CP1	7D	65	8.53	10CP1
		7D	66	9.3	10CP1	7D	36	10.07	10CP1
		8B	03	10.61	10CP1	8B	03	12.61	10CP1
		7M	12	14.61	10CP2	7M	13	16.11	10CP2
		8B	03	16.89	10CP1	4D	49	18.89	10CP1
20EK07	PERFORM SHUTDOWN	8B	03	0	10CP1	6A	17	2	10CP1
	CHECKLIST - 3A	1N	18	4.17	10CP1	8B	03	5.67	10CP1
		4F	12	7.67	10CP1	8B	03	9.67	10CP1
		8B	03	11.67	10CP1	8B	03	13.67	10CP1
		7H	01	15.67	10CP1	7H	02	18.48	10CP1
		8B	03	20.51	10CP1				10
20EK08	SECURING PROCEDURE-A	7D	06	0	10CP2	7L	11	2.49	10CP1
		8B200001		6.08	10CP1	7B	55	37	10CP3
20EK09	PERFORM SHUTDOWN	8B	03	0	10CP1	8B	03	2	10CP1
	CHECKLIST - 4A	8B	03	4	10CP1				10
20EK10	SCENARIO COMPLETED				10				10
230001	TURN OFF OF RWY 08	4M	05	0	10 P1	8A	08	0	10 P2
	ONTO TAXIWAY D AND	4B	03	10	10 P1	4M	04	15	10 P4
	TAXI TO RAMP	4D	28	1 08	10 P2	4B	08	1 08	10 P1
230002	AFTER LNDG PROC.	4F	01	1	10 P4	7E	16	0	10CP3
		7M	17	3	10CP1	7M	18	5.5	10CP1
		7L	13	4	10 P4	7G	16	8.5	10CP2
		6A	09	10	10CP1	1N	01	12.37	10CP1
		4F	12	14.30	10CP1	4E	06	16.30	10CP3
		7B	24	6.5	10 P1				10
		7B	34	7.2	10 P3	7B	25	7.8	10 P1
230003	TURN OFF TAXIWAY D	8A	02	0	10 P2				10
	ONTO RAMP AND TAXI	4B	03	5	10 P4	4M	04	0	10 P1
	TO ARRIVAL GATE	4D	28	2 20	10 P2	4B	08	2 20	10 P1
230004	TAXI UP TO GATE	4M	01	0	10 P4	4B	03	0	10 P4
23EK01	TURN OFF OF RWY 08	4M	03	0	10CP4	8A	07	0	10CP2
	ONTO TAXIWAY D AND	4B	07	10	10CP1	4M	04	13	10CP4
	TAXI TO RAMP. - A	4D	28	1 18	10CP1	4B	07	1 12	10CP1
23EK02	AFTER LANDING PROC -	7E	16	0	10CP3	7M	17	3	10CP1
	A	7M	18	5.5	10CP1	7L	22	7	10CP1
		7G	16	8.5	10CP2	6A	09	10	10CP1
		1N	01	12.37	10CP1	4F	12	14.3	10CP1
		4E	06	16.3	10CP3	7B	34	19	10CP1
		7B	25	20.75	10CP1				10
23EK03	TURN OFF OF TAXIWAY	4D	28	0	10CP1	8A	07	0	10CP3
	D AND ONTO RAMP AND	4B	07	5	10CP1	4M	04	5	10CP1
	TAXI TO GATE - A				10	4B	08	2 26	10CP2
23EK04	TAXI UP TO GATE	4M	03	0	10CP4	4B	07	0	10CP1

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                                  8A     07        0  10CP4                  10
DUMMY     DUMMY PROCEDURE         8F DUMMY         1  10 *1                  10
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TASKS									
1A	01 MON VHF-1L FREQ IND	1	.76	90			5		
		2	4.03	90			5		
		3	4.09	90			5		
1A	02 SET VHF-1L FREQ - WHOLE NO.S	1	2.05	10		100	5		P
		2	2.98	10	100		5		CP
		3	2.05	10	100		5		CP
1A	03 SET VHF-1L FREQ - FRACTIONS	1	1.98	10	100		5		CP
		2	1.98	10		100	5		
1A	04 ADJ VHF-1 VOLUME	1	2.08	10	100		5		CP
		2	2.11	10		100	5		P
1A	05 SET VHF-1 COMM TFR SW TO LEFT	1	2.39	20		100	5		
		2	1.43	20		100	5		
		3	2.39	20	100		5		
		4	1.43	20	100		5		
1A	06 SET VHF-1 COMM TFR SW TO RIGHT	1	2.39	100	100		5		
		2	1.43	100	100		5		
		3	2.30	100		100	5		
		4	1.43	100		100	5		
1A	07 MON VHF-1R FREQ IND	1	.76	90			5		
		2	4.86	90			5		
		3	4.96	90			5		
		4	3.99	90			5		
1A	08 SET VHF-1R FREQ. WHOLE NO.S	1	2.98	10		100	5		
		2	2.01	10		100	5		
		3	2.98	10	100		5		
		4	2.01	10	100		5		
1A	09 SET VHF-1R FREQ - FRACTIONS	1	1.98	10	100		5		CP
		2	1.98	10		100	5		
		3	2.11	10		100	5		P
1A	10 ACT PUSH-TO-TALK SW	1	3.5			100	5		
		2	5.0			100	5		
		3	1.7			100	5		
		4	2			100	5		
1A	11 COMM VIA VHF-1	1	5.						
		2	12.						
		3	1.7						
		4	7.						
1A	12 COMM VIA VHF-1	1	3.5						
		2	3.0						
		3	6						
1A	14 MON VHF-1 COMM AUDIO	1	17.						
		2	6.						
		3	7.						
		4	3.						
1A	15 MON VHF-1 COMM AUDIO	1	5.						
		2	4.						
		3	24						
		4	2.5						
1A	17 SET COMM 2 VHF-1 COMM RECVR SW TO ON	1	2.39	100	100				CP
		2	1.52	100	100		5		P
		3	2.09	100		100	5		P
		4	1.60	100		100	5		CP
1A	18 SET COMM 2 VHF-1 COMM RCVR SW TO OFF	1	2.39	100		100	5		
		2	1.52	100		100	5		
		3	2.09	100	100		5		
		4	1.60	100	100		5		
1A	19 SET COMM 2 MIC SEL SW TO VHF-1	1	2.86	100	100		5		CP
		2	1.99	100		100	5		P
		3	2.92	100		100	5		P

			4	1.99	100	100		5		
1A	20	ACT COMM 2 PTT SW	1	1.42	20		100	5		
			2	1.50	20		100	5		
			3	1.42	20	100		5		
			4	2.35	20	100		5		
1A	21	SET COMM BOOM/OXY SW TO BOOM	1	1.50	100		100	5		
1A	22	SET COMM 2 BOOM/OXY SW TO OXY	1	1.50	100		100	5		
			2	2.35	100		100	5		1A
1A	23	ADJ COMM 2 MIC VOL	1	2.04	10		100	5		
1A	24	ACT COMM 2 PUSH-TO-TALK SW	1	6.42	10	100		5		
			2	13.42	10	100		5		
			3	3.12	10	100		5		
1A	25	ACTUATE COMM 2 PUSH-TO-TALK SW	1	7.	10		100	5		
			2	1.7	10		100	5		
			3	2.35	10		100	5		
			4	3.0	10		100	5		
1A	26	ACT B/O PTT SW	1	1.0	10		100	5		
			2	1.5	10		100	5		
			3	2.0	10		100	5		
			4	2.5	10		100	5		
1A	27	ACT B/O PTT SW	1	3.0	10		100	5		
			2	3.5	10		100	5		
			3	4.0	10		100	5		
			4	4.5	10		100	5		
1A	28	ACT B/O PTT SW	1	1.0	10	100		5		
			2	1.5	10	100		5		
			3	2.0	10	100		5		
			4	2.5	10	100		5		
1A	29	ACT B/O PTT SW	1	3.0	10	100		5		
			2	3.5	10	100		5		
			3	4.0	10	100		5		
			4	4.5	10	100		5		
1B	01	MON VHF-2L FREQ IND	1	.76	90			5		
			2	4.88	90			5		
			3	5.08	90			5		
1B	02	SET VHF-2L FREQ-WHOLE NO.S	1	2.20	10	100		5		C
			2	2.90	10	100		5		CP
			3	2.40	10		100	5		P
			4	3.10	10		100	5		
1B	03	SET VHF-2L FREQ - FRACTIONS	1	1.98	10	100		5		CP
			2	1.98	10		100	5		
1B	04	ADJ VHF-2 VOLUME	1	2.00	10	100		5		C
			2	2.09	10	100		5		CP
			3	2.09	10		100	5		P
			4	2.19	10		100	5		
1B	05	SET VHF-2 COMM TFR SW TO LEFT	1	1.45	10		100	5		
			2	2.39	10		100	5		
			3	1.49	10	100		5		
			4	2.39	10	100		5		
1B	06	SET VHF-2 COMM TFR SW TO RIGHT	1	1.45	10	100		5		
			2	2.39	10	100		5		
			3	1.49	10		100	5		
			4	2.39	10		100	5		
1B	07	MON VHF-2R FREQ IND	1	.76	100			5		
			2	4.01	90			5		
			3	4.86	90			5		
1B	08	SET VHF-2R FREQ - WHOLE NO.S	1	2.03	10	100		5		CP
			2	2.88	10	100		5		CP
			3	2.03	10		100	5		

			4	2.98	10		100	5	
1B	09	SET VHF-2R FREQ - FRACTIONS	1	1.98	10	100		5	
			2	1.93	10		100	5	
1B	10	SET COMM 2 MIC-SEL SW TO VHF-2	1	2.86	100		100	5	
			2	1.99	100	100		5	
			3	2.92	100	100		5	
1B	11	SET COMM 2 VHF-2 COMM RECVR SW TO ON	1	2.09	100		100	5	P
			2	1.52	100		100	5	P
			3	2.39	100	100		5	CP
			4	1.44	100	100		5	CP
1B	12	SET COMM VHF-2 COMM RCVR SW TO OFF	1	2.39	100		100	5	
			2	1.44	100		100	5	
			3	2.09	100	100		5	
			4	1.52	100	100		5	
1B	13	ACT COMM 2 PTT SW	1	1.42	10		100	5	
			2	2.30	10		100	5	
			3	1.42	10	100		5	
			4	3.50	10	100		5	
1B	14	ACT PUSH-TO-TALK SW ON HANDGRIP	1	4.8			100	5	
			2	2.5			100	5	
			3	1.5			100	5	
			4	1.7			100	5	
1B	15	COMM VIA VHF-2	1	4.8					
			2	2.5					
			3	1.5					
			4	1.7					
1B	16	COMM VIA VHF-2	1	3.5					
			2	2.3					
			3	4.5					
			4	2.8					
1B	17	COMM VIA VHF-2	1	7.0					
			2	5.0					
			3	4.0					
			4	6.0					
1B	18	MON VHF-2 COMM AUDIO	1	30.					
			2	2.5					
			3	6.0					
			4	3.5					
1B	19	MON VHF-2 COMM AUDIO	1	3.2					
			2	7.0					
			3	6.2					
			4	10.					
1B	20	MON VHF-2 COMM AUDIO	1	5.					
			2	5.5					
			3	1.7					
			4	3					
1B	21	SET COMM 2 BOOM/OXY SW TO BOOM	1	1.50	100		100	5	
			2	2.42	100		100	5	
			3	1.47	100	100		5	
			4	1.47	100	100		5	
1B	22	SET COMM 2 BOOM/OXY SW TO CXY	1	1.40	100			5	
			2	1.47	100			5	
			3	1.50	100			5	
			4	2.42	100			5	
1B	23	ADJ COMM 2 MIC VOL	1	1.97	10	100		5	CP
			2	2.04	10		100	5	
1B	24	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	4.5			100	5	
			2	2.8			100	5	
			3	6.2			100	5	
			4	3.5			100	5	

1B	25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	5			100		5			
			2	4			100		5			
			3	6			100		5			
			4	4.2			100		5			
1B	26	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	7			100		5			
			2	3			100		5			
			3	10			100		5			
			4	7.5			100		5			
1B	28	ACTUATE COMM 2 PUSH-TO-TALK SW	1	5.0			100		5			
			2	6.0			100		5			
			3	4			100		5			
			4	4.25			100		5			
1B	29	ACTUATE COMM 2 PUSH-TO-TALK SW	1	1.7			100		5			
			2	3.5			100		5			
			3	1.5			100		5			
			4	3			100		5			
1B	32	COMM VIA VHF-2	1	4.2								
			2	3								
			3	10								
			4	7.5								
1B	33											
1B	34											
1B	35											
1B	36	MONITOR VHF-2 COMM AUDIO	1	11								
			2	2								
			3	12								
			4	6.5								
1B	37	MONITOR VHF-2 COMM	1	16								
			2	4								
			3	15								
			4	3.7								
1B	38	ACC CNTL WHEEL COMM SWITCH	1	8.3		100			5			
									5			
1B	39	COMM VIA VHF-2	1	8.3					5		100	
									5			
		AUDIO	2	4					5			
			3	15					5			
			4	3.7					5			
1F	01	MON COCKPIT CALL CHIME	1	1.00					5	100		
									5			
1F	02	MON COCKPIT CALL ANNUN LT ON	1	.71		100			5			P
									5			
1F	03	ACT ATTENDANT CALL SW	1	2.35		100		100	5			P
									5			
1F	04	SET SERVICE INTPHN SW TO ON	1	2.92		100		100	5			P
									5			
1F	05	SET SERVICE INTPHN SW TO OFF	1	2.92		100		100	5			
									5			
1F	06	SET COMM 2 MIC SEL SW TO INT	1	2.86		100	100		5			CP
			2	2.92		100		100	5			P
			3	1.99		100		100	5			P
1F	07	SET COMM 2 INT COMM RECVR SW TO ON	1	2.44		100		100	5			
			2	1.55		100	100		5			
			3	2.34		100	100		5			
1F	08	SET COMM 2 INT COMM RECVR SW TO OFF	1	2.44		100		100	5			
			2	1.55		100	100		5			
			3	2.34		100	100		5			
1F	09	MON INT COMM AUDIO	1	.8					5			
			2	.9					5			
			3	1.5					5			

1F	10	MON INT COMM AUDIO							5	
1F	11	INTPHN COMM	1	1.4					5	
			2	1.3					5	
			3	1.3					5	
1G	01	SET COMM 2 PA COMM	1	1.41	100		100		5	P
		RECVR SW TO ON	2	1.45	100		100		5	
1G	02	SET COMM 2 PA COMM	1	1.41	100	100			5	
		RECVR SW TO OFF	2	1.97	100		100		5	
1G	03	SET COMM 2 MIC SEL	1	2.32	100		100		5	
		SW TO PA	2	2.92	100		100		5	P
			3	1.99	100		100		5	P
1G	04	ACTUATE HANDMIKE SW							5	
		FOR PUBLIC ADDRESS							5	
		ANNOUNCEMENT							5	
1G	06	PICK UP PA HANDMIKE	1	3.08	100	100			5	CP
			2	2.58	100		100		5	P
			3	5.06	100		100		5	P
1G	07	RETURN PA HANDMIKE	1	3.08	100	100			5	
		TO CRADLE	2	2.58	100		100		5	
			3	5.06	100		100		5	
1G	08	SET COMM 2 PA COMM	1	1.41	100	100			5	CP
		RECVR SW TO ON							5	
1G	09	SET COMM 2 PA COMM	1	1.41	100	100			5	
		RECVR SW TO OFF							5	
1G	10	SET COMM 2 MIC SEL	1	2.86	100	100			5	CP
		SW TO PA							5	
1G	11	PRESS COMM 2 PRESS-	1	1.42	100	100			5	CP
		TO-TALK SW FOR PA	2	1.42	100		100		5	P56
1G	12	SET COMM RCVR SW ON	1	1.41	50		100		5	
1G	13	SET COMM RCVR SW ON	1	2.5	50	100			5	
			2	3.0	50	100			5	
			3	2.5	50		100		5	
			4	3.0	50		100		5	
1H	01	ACTUATE GRD CALL SW	1	2.37	20		100		5	P
			2	2.37	20	100			5	
1J	01	ACTUATE VOICE REC	1	1.49	100	100			5	CP
		TEST SW							5	
1J	02	MON VOICE REC	1	2.03	100				5	CP
1M	01	MON VHF 1 SELCAL LT	1	.53	100				5	P
		ON	2	1.05	100				5	CP
1M	02	MON VHF 2 SELCAL LT	1	1.71	100				5	CP
		ON	2	1.05	100				5	CP
1M	03	MONITOR SELCAL CHIME	1	1.00					5	100
1M	04	COMM VIA SELCAL							5	
1M	05	PUSH VHF 1 SELCAL	1	2.22	100		100		5	P
		TEST/RESET SW	2	2.30	100	100			5	CP
1M	06	PUSH VHF 2 SELCAL	1	2.22	100	100			5	CP
		TEST/RESET SW							5	
1N	01	SET ATC FUNCTION SEL	1	1.93	100	100			5	CP
		SW TO OFF							5	
1N	02	SET ATC FUNCTION SEL	1	1.93	100	100			5	
		SW TO STDBY	2	1.93	100		100		5	1N
1N	03	SET ATC FUNCTION SEL	1	1.93	100	100			5	
		SW TO ON							5	
1N	04	SET ATC FUNCTION SEL	1	1.93	100	100			5	
		SW TO LO SENS							5	
1N	05	SET ATC IDENT CODE	1	2.80	10	100			5	C
			2	2.04	10	100			5	CP3
1N	06	MON IDENT CODE INDIC	1	.77	100				5	CP
			2	2.04	90				5	

			3	2.80	90		5		
1N	07	PRESS ATC IDENT SW	1	2.14	50	100	5		CP
			2	1.41	50	100	5		CP
1N	08	SET ATC MODE SEL SW TO A	1	2.61	100	100	5		CP
							5		
1N	09	SET ATC MODE SEL SW TO B	1	2.61	100	100	5		
							5		
1N	10	SET ATC MODE SEL SW TO C	1	2.61	100	100	5		
							5		
1N	11	SET ATC MODE SEL SW TO D	1	2.61	100	100	5		
							5		
1N	12	SET ATC TRANSPONDER SEL TO NO.1	1	1.93	100	100	5		CP
							5		
1N	13	SET ATC TRANSPONDER SEL TO NO.2	1	1.93	100	100	5		
							5		
1N	14	SET ATC ALT REPTG SOURCE SW TO NO.1	1	1.57	100	100	5		CP
							5		
1N	15	SET ATC ALT REPTG SOURCE SW TO NO.2	1	1.57	100	100	5		
							5		
1N	16	SET ATC TEST SW TO TEST	1	1.50	80	100	5		CP
							5		
1N	17	SET ATC TEST SW TO MONITOR	1	1.50	80	100	5		
							5		
1N	18	MON ATC TEST LT ON	1	1.50	20		5		
1P	01	MONITOR INSTRUCTIONS	1				5		
			2				5		
			3				5		
			4				5		
1P	02	MON VERBAL REPORT	1	1.5			5	100	
			2	2.0			5	100	
			3	3.0			5	100	
			4	1.3			5	100	
1P	03	ACKNOWLEGE	1	.50			5		50
			2				5		
			3				5		
			4				5		
1P	04	MON VERBAL REPORT	1	2.8			5	100	
			2	2.2			5	100	
			3	1.8			5	100	
			4				5		
1P	05	MON VERBAL REPORT	1	5.0			5	100	
			2	6.2			5	100	
			3	4.0			5	100	
			4				5		
1P	06	MON VERBAL REPORT	1	2.50			5	100	
			2	6.0			5	100	
			3	1.0			5	100	
			4	.5			5	100	
1P	07	MON VERBAL REPORT	1	4.5			5	100	
			2	.7			5	100	
			3	2.3			5	100	
			4	.8			5	100	
1P	08	MON VERBAL REPORT	1	.9			5	100	
			2	1.6			5	100	
			3	1.2			5	100	
			4	.6			5	100	
1P	09	MON VERBAL REPORT	1	1.3			5	100	
			2	1.4			5	100	
			3	10			5	100	
			4	1.9			5	100	

1P	10	MON VERBAL REPORT	1	1.0	5	100		
			2	.7	5	100		
			3	1.2	5	100		
			4	.6	5	100		
1P	11	MON VERBAL REPORT	1	.5	5	100		
			2	.8	5	100		
			3	.9	5	100		
			4	1.7	5	100		
1P	12	MON VERBAL REPORT	1	2.5	5	100		
			2	1.4	5	100		
			3	2.2	5	100		
			4	1.1	5	100		
1P	13	MON VERBAL REPORT	1	2.3	5	100		
			2	2.4	5	100		
			3	3.5	5	100		
			4	1.8	5	100		
1P	14	MON VERBAL REPORT	1	1.9	5	100		
			2	.4	5	100		
			3	1.6	5	100		
			4	2.1	5	100		
1P	15	MON VERBAL REPORT	1	2.7	5	100		
			2	3.7	5	100		
			3	4.2	5	100		
			4	3.2	5	100		
1P	16	MON VERBAL REPORT	1	.4	5	100		
			2	.3	5	100		
			3	3	5	100		
			4	1.5	5	100		
1P	17	MON VERBAL REPORT	1	3.5	5	100		
			2	3.7	5	100		
			3	4	5	100		
			4	2	5	100		
1P	18	MON VERBAL REPORT	1	1.1	5	100		
1P	19	MON VERBAL REPORT	1	4	5	100		
			2	1.5	5	100		1P
			3	4.5	5	100		
1P	20	MON VERBAL REPORT	1	2.00	5	100		1P
1P00IV01		CALL-OUT TRAFFIC SITUATION NORMAL	1	2	10 10		100	
1P00IV02		CALL-OUT TRAFFIC CONFLICT X 0'CLOCK	1	2	10 10		100	
1PXXXX01		CALLOUT - GET THE CHECKLIST	1	1.5	10 10		100	
1PXXXX02		RPT- CHKLST COMP	1	1.0	10		100	
1PXXXX03		RPT- ON	1	.5	10		100	
1PXXXX04		RPT- OFF	1	.5	10		100	
1PXXXX05		RPT- SET	1	.5	10		100	
1PXXXX06		RPT- SET AND CHKD	1	1.0	10		100	
1P00BA01		CALL OUT- FUEL HEAT VALVE CHKLST	1	2.3	10 10		100	
1P00BA02		READ ITEM- ENGINE OIL TEMP LMTS	1	2.0	10 10		100	
1P00BA03		CALL OUT- OIL TEMP O K	1	1.5	10 10		100	
1P00BB01		CALL OUT- MINIMUM FUEL GO-AROUND	1	1.5	10 10		100	
1P00BB02		REPORT- MIN FUEL GO-AROUND CHKLST	1	1.5	10 10		100	
1P00BB03		CALL OUT- FUEL PUMPS	1	1.0	10 10		100	

1P00BB04	REPORT- PUMPS ON	1	1.0	10	
1P00BB05	CALL OUT- FUEL CROSSFEED SELECTORa	1	2.0	10	
1P00BB06	REPORT OPEN	1	.5	10	100
1P00BB07	REPORT AVOID SUSTAIN -ED HIGH NOSE-UP ATTITUDES	1	2.3	10	100
1P00BB08	ACKNOWLEDGE ROGER AVOID SUSTAINED HIGH NOSE-UP ATTITUDES	1	2.5	10	100
1P00BC01	RPT- FILTER ICING CHKLST	1	1.5	10	100
1P00BC02	READ- FUEL HEAT SW	1	1.0	10	100
1P00BD01	RPT- FUEL GAGES SHOW FUEL XFR PROBLEM, GET CHKLST	1	2.8	10	100
1P00BD02	RPT- INADVERTENT XFR OF FUEL TO CNTR TANK CHKLST	1	2.5	10	100
1P00BD03	READ- AFFECTED MAIN BOOST PUMPS	1	1.6	10	100
1P00BD04	READ- CNTR TANK BOOST PUMPS	1	2.2	10	100
1P00BD05	READ- RESET CIRCUIT BREAKER IF NECESSARY	1	2.4	10	100
1P00BD06	RSPND- ROGER RESET CIRCUIT BREAKER IF NEEDED	1	2.6	10	100
1P00BD07	READ- MAIN TANK BOOST PUMPS	1	1.3	10	100
1P00BD08	READ- XFEED VALVE REMAINS CLOSED	1	2.0	10	100
1P00BD09	RSPND- ROGER XFEED VALVE CLOSED	1	2.0	10	100
1P00CB01	RPT- CSD LOW PRESS/ HIGH TEMP LT CHKLST	1	3.0	10	100
1P00CB02	READ- GENERATOR DRIVE DISCONNECT SW	1	2.0	10	100
1P00CB03	RPT- DISCONNECT	1	.5	10	100
1P00CB04	READ- APU	1	1.0	10	100
1P00CB05	RPT- APU GEN START AND ON BUS	1	1.8	10	100
1P00CD01	RPT- STDBY POWER LT OFF CHKLST	1	1.8	10	100
1P00CD02	READ- STDBY PWR SW	1	1.5	10	100
1P00CD03	RPT- BATTERY	1	.5	10	100
1P00CE01	RPT- BUS OFF LT CHKLST	1	1.5	10	100
1P00CE02	READ- GENERATOR SW	1	1.0	10	100
1P00CE03	READ- IF LT TRIPS ON AGAIN APU START AND ON BUS	1	2.5	10	100
1P00CE04	RSPND- ROGER APU ON BUS IF GEN NOT RESET	1	2.2	10	100
1P00CE05	RPT- GENERATOR RESET TO ON	1	1.2	10	100
1P00CF01	RPT- XFR BUS OFF LT CHKLST	1	2.0	10	100
1P00CF02	READ- XFR BUS SW RESET TO AUTO	1	2.5	10	100

1P00CF03	RPT- SW RESET	1	1.0	10	100
1P00CG01	RPT- EQUIPMENT COOL- ING OFF LT CHKLST	1	2.5	10 10	100
1P00CG02	READ- EQUIP COOLING SW TO ALT	1	1.8	10 10	100
1P00CG03	RPT- COOLING SW ALT	1	1.5	10	100
1P00DA01	RPT- LOSS HYDRAULIC SYSTEM-A CHKLST	1	2.0	10 10	100
1P00DA02	READ- SYS-A FLT CNTRLS - STDBY RDR	1	3.0	10 10	100
1P00DA03	RPT- FLT CNTRL A ON STDBY	1	2.0	10 10	100
1P00DA04	READ- HYD PUMPS OFF	1	2.0	10	100
1P00DA05	READ- AUTOPILOT HYD SYS SELECT SYS-B	1	3.0	10 10	100
1P00DA06	RPT- AUTO ON SYS-B	1	2.0	10	100
1P00DA07	ADVISE- GROUND SPOIL ERS AND NOSE WHEEL STEING ARE INOP	1	3.5	10 10 10	100
1P00DA08	THRUST REVERSERS HAVE ACCUMULATOR PRESSURE INBOARD BRAKES HAVE	1	3.5	10 10 10 10	100
1P00DA09	ACCUMULATOR PRESSURE CHECK WEATHER, PLAN FLAPS 15 LANDING	1	3.5	10 10 10	100
1P00DA10	RPT- ROGER GROUND AND INBD FLT SPOILER OUT. ACCUMULTOR PRESSURE FOR THRUST	1	4.0	10 10 10 10	100
1P00DA11	REVERSER AND INBOARD BRAKES. PLAN FOR FLAPS 15 LANDING.	1	4.0	10 10 10	100
1P00EC01	READ- PREPARE FOR LOSS OF ALL BUT STBY PWR AND FOR USE OF MANUAL TRIM	1	5.0	10 10 10 10	100
1P00EC02	READ- PITOT STATIC HEAT WILL BE INOP	1	2.0	10 10	100
1P00EC03	ADVISE- ROGER, LOSS OF GENERATORS POSSIB LE WITH ONLY STDBY AND BATT AVAILABLE	1	4.5	10 10 10 10	100
1P00EC04	UNDERSTAND ELEC TRIM OUT AND PITOT HEAT WILL BE INOP	1	3.5	10 10 10	100
1P00EC05	READ- BUS XFR SW OFF	1	2.0	10	100
1P00EC06	READ- WAIT A REASON- ABLE TIME TO DETERMI NE WETHER TO FOLLOW STEP A OR B BELOW	1	4.5	10 10 10 10	100
1P00EC07	RESTORE POWER SLOWLY NOTING IF SMOKE OCCU RS AND MONITOR ELEC LOADS	1	5.0	10 10 10 10	100
1P00EC08	ADVISE- ROGER, RESTO RE POWER SLOWLY MON- ITORING FOR SMOKE AND ELEC LOADS	1	3.0	10 10 10 10	100
1P00EC09	READ- NO.2 GEN SW ON	1	2.0	10	100

1P00EC10	READ- IF SMOKE DOES NOT RECURR CONTINUE WITH NO.1 GEN OFF. ENG NO.1 RVRSR INOP	1	6.2	10	100
1P00EC11	ADVISE-ROGER IF SMOK DIES LEAVE GEN#1 OFF ENG#1 RVRSR INOP	1	4.5	10	100
1P00EC12	READ- NO.1 GEN SW ON	1	2.0	10	100
1P00EC13	READ-NO.2 GEN SW OFF	1	2.0	10	100
1P00EC14	ADVISE- GEN#1 ON BUS GEN#2 OFF BUS	1	3.0	10	100
1P00EC15	READ- CONTINUE FLT WITH GEN#2 OFF BUS ENG#2 RVRSR INOP	1	4.5	10	100
1P00EC16	READ-NO.2 GEN SW ON	1	2.0	10	100
1P00EC17	READ-NO.1 GEN SW ON	1	2.0	10	100
1P00EC18	ADVISE- V/G OPERTIV	1	1.5	10	100
1P00EC19	READ- STDBY PWR SW OFF	1	2.0	10	100
1P00EC20	READ- BATT SW OFF	1	1.5	10	100
1P00EC21	READ- BUS XFR SW AUTO	1	2.0	10	100
1P00EC22	READ- IF POSSIBLE RESTORE PWR TO ANY PART OF THE A/C THAT CAN OPERATE NORMAL	1	4.0	10	100
1P00EC23	READ- WITH BATT SW OFF FIRE DETECT INOP LAND AS SOON AS POSSIBLE	1	4.0	10	100
1P00EC24	READ- USE SMOKE EVAC UATION PROCEDURE IF NECESSARY	1	2.5	10	100
1P00EC25	ADVISE- ROGER, OPER- ATE SYSTEM NORMAL IF POSSIBLE, FIRE DETEC TION INOP	1	4.0	10	100
1P00ED01	READ- OX MASKS AND SELECTORS ON - 100	1	2.0	10	100
1P00ED02	READ- CREW COMMUNICA TIONS ESTABLISH	1	2.0	10	100
1P00ED03	READ-PRESSURE MODE SELECT - MANUAL	1	2.0	10	100
1P00ED04	READ-OUTFLOW VALVE CLOSE	1	2.0	10	100
1P00ED05	READ-NO SMOKING,SEAT BELTS FASTEN SW - ON	1	3.0	10	100
1P00ED06	READ- PASS OXYGEN (IF REQUIRED) ON	1	2.0	10	100
1P00ED07	READ-START EMERGENCY DESCENT PROCEDURE IF REQD	1	3.0	10	100
1P00ED08	READ-CABIN ALTIMETER AND CLIMB INDIC - MONITOR	1	3.5	10	100
1P00ED09	READ-CREW OXYGEN SEL NORMAL	1	2.0	10	100
1P00EE01	ADVISE-PASSENGERS AND CREW FASTEN SEAT BELTS AND REMAIN	1	4.0	10	100

	SEATED DURING DESCNT			10	
1P00EE02	READ-IF STRUCTURAL STRENGTH IN DOUBT LIMIT SPEED AS MUCH AS POSSIBLE	1	3.0	10 10 10 10	100
1P00EE03	READ-REDUCE RATE OF DESCENT AND AVOID HIGH MANUVER LOADS	1	4.0	10 10 10	100
1P00EE04	ADVISE-ROGER LIMIT SPEED,DESCENT, AND G LOADS AS NEEDED	1	4.0	10 10 10	100
1P00EE05	READ-START SWS FLT	1	1.5	10	100
1P00EE06	READ-THRST LVRS IDLE	1	1.5	10	100
1P00EE07	READ-SPD BRAKES FLT	1	1.5	10	100
1P00EE08	READ-TARGET SPD VMO	1	3.0	10	100
1P00EE09	READ-LEVEL OFF AT 14000 OR MEA WHICH-EVER HIGHER	1	4.5	10 10 10	100
1P00EE10	READ-SPD BRAKES SET DOWN DETENT	1	2.0	10 10	100
1P00EE11	READ-CREW OX NORMAL	1	1.5	10	100
1P00EE12	READ-START SWS AS REQUIRED	1	2.0	10 10	100
1P00EF01	READ-MASTER FIRE WARNING - OFF	1	1.5	10 10	100
1P00EF02	ADVISE- FIRE WARNING OFF	1	1.5	10 10	100
1P00EF03	READ-FIRE WARN SW PULL AND ROTATE	1	3.0	10 10	100
1P00EF04	READ-TO OVERRIDE FIRE SW LOCK, DEPRES BUTTON WHILE PULLING SWITCH	1	4.5	10 10 10 10	100
1P00EF05	READ-ROTATE SW THRU MECHANICAL LIMIT AND HOLD FOR AT LEAST ONE SECOND	1	4.0	10 10 10 10	100
1P00EG01	READ-MASTER FIRE WARN SW - RESET	1	1.5	10 10	100
1P00EG02	READ-LNDG GEAR(MAX 270 KTS) - DOWN	1	4.5	10 10	100
1P00EG03	READ-DO NOT RETRACT LNDG GEAR UNTIL FIRE IS OUT AND BRAKES COOLED FOR 20 MIN	1	4.5	10 10 10 10	100
1P00EG04	ADVISE-ROGER RETRACT LNDG GEAR AFTER BRAKES COOLED AND FIRE OUT	1	4.0	10 10 10 10	100
1P00XX01	CALLOUT-HOW DO YOU HEAR ME	1	1.5	10 10	100
1P00XX02	ADVISE-5 BY 5 HOW DO YOU HEAR ME	1	2.0	10 10	100
1P00EX01	READ-OXYGEN MASKS ON REGULATOR SET ON 100	1	2.5	10 10	100
1P00EX02	READ-SMOKE GOGGLES ON	1	1.5	10 10	100
1P00EX03	READ-COCKPIT DOOR CLOSE	1	1.5	10 10	100
1P00EX04	ADVISE-CREW COMM	1	1.5	10	100

	ESTABLISHED			10	
1P00EH01	READ-WINDOW SHOULD NOT BE OPENED UNLESS SMOKE ORIGIN CONFIRMED TO BE IN COCKPIT	1	4.0	10	100
1P00EH02	READ-NORMAL HOLDING AIRSPEED - ESTAB	1	2.0	10	100
1P00EH03	ADVISE-HOLDING AIR SPEED ESTABLISHED	1	1.5	10	100
1P00EH04	READ-FIRST OFFICER SLIDING WINDOW OPEN	1	2.0	10	100
1P00EH05	READ-PRESSURIZATION MODE SELECT - MAN	1	2.5	10	100
1P00EH06	READ-CABIN ALT SELCT INCREASE MAX 10000	1	4.0	10	100
1P00EH07	READ-CABIN RATE SELECT MAX INCREASE	1	3.0	10	100
1P00EH08	READ-L AND R PACK SWS ON	1	2.0	10	100
1P00EH09	READ-ENGINE THRUST (MAX POSSIBLE) ABOVE 1.2 EPR	1	4.0	10	100
1P00EH10	READ-COCKPIT AIRCOND AND GASPAR OUTLETS OPEN	1	2.5	10	100
1P00FA01	RPT- GEAR SEAL LT ON	1	2.0	10	100
1P00FA02	RPT- GEAR SEAL LT ON CHKLST	1	2.5	10	100
1P00FA03	READ- GEAR SEAL SW-NORMAL	1	2.0	10	100
1P00FC01	RPT- SYB A/B SHOW LOW BRAKE PRESSURE	1	2.0	10	100
1P00FC02	READ- LOSS OF SYS A/B BRAKE PRESS	1	2.0	10	100
1P00FC03	READ- AUTO BRAKE OFF	1	1.5	10	100
1P00FC04	READ- BRAKES- APPLY STEADY PRESSURE	1	2.0	10	100
1P00FG01	CALLOUT- ANTISKID LT ON	1	2.0	10	100
1P00FG02	READ-ANTISKID INOP CHKLST	1	2.5	10	100
1P00FG03	READ-AUTO BRAKE OFF	1	1.5	10	100
1P00FG04	READ-IF BRAKING ACTION ABNORMAL DURING LNDG SET ANTI SKID SWS TO OFF	1	4.0	10	100
1P00FG05	READ- BRAKE WITH CAUTION	1	1.5	10	100
1P00FF01	RPT- AUTOBRAKE INOP LIGHT ON	1	2.5	10	100
1P00FF02	READ- AUTOBRAKE INOP CHECKLIST	1	2.5	10	100
1P00GA01	READ- DUCT OVRHT LT CHKLST	1	2.0	10	100
1P00GA02	READ-TRIP RESET SW RESET	1	2.0	10	
1P00GA03	READ- TEMP SELECT MAN(AS RQD)	1	2.0	10	100
1P00GB01	READ- PACK TRIP CHKLST	1	1.5	10	100

1P00GB02	READ- TEMP SELECT WARMER	1	1.5	10	100
1P00GB03	READ- TRIP RESET SW RESET	1	2.0	10	100
1P00GC01	READ- WING/BODY OVHT CHKLST	1	2.0	10	100
1P00GC02	READ- ISOLATION VALVE- CLOSE	1	2.5	10	100
1P00GC03	READ- BLEED SW OFF	1	1.5	10	100
1P00GD01	READ- BLEED TRIP CHKLST	1	1.5	10	100
1P00GD02	READ- TRIP RESET SW RESET	1	2.0	10	100
1P00GE01	READ- AUTO FAILCKLST	1	1.5	10	100
1P00GE02	READ- MODE SELECT STDBY	1	2.0	10	100
1P00GF01	READ- OFF SCHEDULE DESCENT	1	2.0	10	100
1P00GF02	READ- FLT ALT COUNTR - RESET TO BARO ALT	1	3.0	10	100
1P00HA01	READ- ENGINE ANTI-ICE VALVE FAIL CKLST	1	3.5	10	100
1P00HA02	READ- TOTAL AIR TEMP 10C OR ABOVE SET N1 70 OR BELOW	1	4.5	10	100
1P00JA01	CALLOUT- WINDOW XX CRAKING	1	2.0	10	100
1P00JA02	READ WINDOW XX HEAT SW OFF	1	2.5	10	100
1P00JA03	READ-REDUCE PRESS DIFERENCE AS FOLLOWS : CRAKED OUTER PANE NO CHANGE	1	4.5	10	100
1P00JA04	INNER PANE CRAKED, MAX DIFFERENCE 5 PSI MAX ALT FL 230, BOTH CRACKED MAX PRESSURE	1	4.5	10	100
1P00JA05	DIFFERENTIAL 2 PSI MAX ALT 13000 DESCEN D NORMALLY OBSERVE WINDOW HT INOP PROC	1	4.5	10	100
1P00JA06	ADVISE- OUTER PANE CRACKED CONTINUE NORMAL FLT	1	2.0	10	100
1P00JB01	READ- WINDOW OVRHT CHKLST	1	2.0	10	100
1P00JB02	READ- WINDOW HT SW OFF	1	2.0	10	
1P00JB03	ADVISE- DESCEND NOR-MAL, OBSERVE WINDOW HT INOP PROC	1	3.0	10	100
1P00KA01	ADVISE- STAB TRIM OUT	1	2.0	10	100
1P00KA02	READ- MOVE CONTROL COLUMN SMOOTHLY AS REQD TO MAINTAIN AIRCRAFT ATTITUDE	1	4.5	10	100
1P00KA03	READ- STAB TRIM SWS CUTOUT	1	2.0	10	100
1P00KA04	READ- STABILIZER	1	2.0	10	100

	TRIM MANUALLY			10	
1P00KB01	ADVISE- I HAVE JAM-	1	3.5	10	100
	MED CONTROLS, HELP			10	
	ME BREAK THEM LOOSE			10	
1P00KB02	READ- JAMMED,STICKY,	1	3.0	10	100
	FAULTY CONTROLS-			10	
	OVERPOWER			10	
1P00KB03	READ- DO NOT TURN	1	4.5	10	100
	OFF ANY FLT CNTRL			10	
	POWER SWS			10	
1P00KC01	ADVISE- STABILIZER	1	4.0	10	100
	IS JAMMED OPEN MAN			10	
	TRIM HANDLE AND HELP			10	
	BREAK IT LOOSE			10	
1P00KC02	READ- BOTH PILOTS	1	4.0	10	100
	SIMULTANEOUSLY AT-			10	
	TEMPT TO BREAK STAB			10	
	JAM. RESTOW HANDLES.			10	
1P00KC03	READ- MAINTAIN IN-	1	2.5	10	100
	TRIM AIRSPEED UNTIL			10	
	START OF APPROACH			10	
1P00KC04	READ- ESTABLISH LNDG	1	3.0	10	100
	CONFIGURATION EARLY,			10	
	PLAN FLAPS 15 LNDG			10	
1P00KC05	ADVISE- ROGER, MAIN-	1	4.5	10	100
	TAIN AIRSPEED, PLAN			10	
	FLAPS 15 LNDG, ESTAB			10	
	LISH CONFIG EARLY			10	
1P00KL01	READ- MOVE FLAP LVR	1	4.5	10	100
	TO DETENT NEAREST			10	
	ACTUAL FLAP POS AND			10	
	LAND CORRESPOND VREF			10	
1P00KL02	READ- FOR FLAP POS	1	4.5	10	100
	LESS THAN 15 SET			10	
	VREF 40+55 KTS			10	
1P00KL03	ADVISE- ROGER, FLAPS	1	2.5	10	100
	LESS THAN 15 VREF40			10	
	+55			10	
1P00KX01	READ- ANTI-ICE	1	1.0	10	100
1P00KX02	ADVISE- SET	1	.5	10	100
1P00KX03	READ- AIR CONDITION-	1	2.0	10	100
	ING AND PRESSURIZ-			10	
	ATION			10	
1P00KX04	ADVISE- SET AND	1	1.5	10	100
	CHECKED			10	
1P00KX05	READ- START SWS	1	1.5	10	100
1P00KX06	ADVISE- FLT	1	.5	10	100
1P00KX07	READ- INBD LNDG LTS	1	2.5	10	100
	AT 10000- ON			10	
1P00KX08	READ- ALTIMETER AND	1	1.5	10	100
	INSTRUMENTS			10	
1P00KX09	ADVISE- SET AND CHKD	1	1.0	10	100
1P00KX10	READ- EPR AND IAS	1	2.0	10	100
	BUGS - VREF & 15			10	
1P00KX11	ADVISE- VREF&15 SET	1	2.5	10	100
1P00K 01	READ- ABNORMAL TYPE	1	2.0	10	100
	LNDG CHKLST			10	
1P00K 02	READ- RECALL	1	1.0	10	100
1P00K 03	ADVISE- CHECKED	1	1.0	10	100
1P00K 04	READ- SPEED BRAKES	1	1.0	10	100

1P00K 05	ADVISE- ARMED,GRN LT	1	1.0	10	100
1P00K 06	READ- FLAPS	1	1.0	10	100
1P00K 07	ADVISE-15, GRN & GRN	1	1.5	10	100
1P00K 08	REAR- GEAR	1	1.0	10	100
1P00K 09	ADVISE- DOWN,3GRN	1	1.0	10	100
1P00KC06	READ- ANTICIPATE HIGHER THAN NORMAL ELEVATOR FORCES DURING APP AND LNDG	1	4.0	10	100
1P00KC07	ADVISE- ROGER, ELEV FORCES MAY BE HIGHER NORMAL	1	3.0	10	100
1P00KD01	READ- LIMIT BANK ANGLE TO 15DEG WHILE ON FINAL	1	2.5	10	100
1P00KD02	ADVISE- ROGER BANK ANGLE LESS THAN 15	1	2.5	10	100
1P00KM01	READ- LIMIT BANK ANGLE TO LESS THAN 15DEG BELOW 210KTS	1	4.5	10	100
1P00KM02	ADVISE- ROGER BANK ANGLE LESS THAN 15 DEG UNDER 210 DEG	1	4.0	10	100
1P00KM03	READ- IF PLACARDED TIRE SPEED EXCEEDED TIRE FAILURE MAY OCCUR	1	3.5	10	100
1P00KM04	ADVISE- ROGER, TIRE FAILURE POSSIBLE IF SPEED EXCEEDED	1	3.0	10	100
1P00KN01	READ- FLT CONTROL LOW PRESSURE CHKLST	1	2.0	10	100
1P00KN02	READ- FLT CONTROL SW - STDBY RUDDER	1	2.5	10	100
1P00KN03	ADVISE- SYS A ON STDBY RUDDER	1	1.5	10	100
1P00KP01	READ- YAW DAMPER LT CHKLST	1	2.0	10	100
1P00KP02	READ- YAW DAMPER SW RESET TO ON	1	2.0	10	100
1P00KP03	READ- YAW DAMPER LT STILL ON - SET YAW DAMPER TO OFF	1	2.5	10	100
1P00KP04	READ- DO NOT ENGAGE AUTOPILOT ABOVE FL300	1	2.5	10	100
1P00KQ01	ADVISE- STAB OUT OF TRIM GET CHKLST	1	2.5	10	100
1P00KQ02	READ- STAB OUT OF TRIM CHKLST	1	1.5	10	100
1P00KQ03	READ- CONTROL COLUMN HOLD FIRMLY	1	2.0	10	100
1P00KQ04	READ- AUTOPILOT DISENGAGE	1	1.5	10	100
1P00KQ05	READ- STAB TRIM - AS REQD	1	2.5	10	100
1P00KR01	ADVISE- SPEED BRAKE DID NOT ARM GET CHKLST	1	2.5	10	100
1P00KR02	READ- SPEED BRAKE	1	2.5	10	100

	NOT ARMED CHKLST			10		
1P00KR03	READ- SPEED BRAKE LVR - DOWN	1	3.0	10	10	100
1P00KR04	READ- AT TOUCHDOWN SPEED BRAKE LVR UP	1	3.0	10	10	100
1P00KS01	READ- MACH TRIM FAIL CHKLST	1	1.5	10	10	100
1P00KS02	READ- AIRSPEED, LIMIT TO MACH .74	1	3.0	10	10	100
1P010001	CALL OUT-¢COMPASS HDG IS XXX DEGREES!	1	2.5	10	10	100
1P010002	CALL OUT-¢ALTIMETER SETTING IS XXXX!	1	2.5	10	10	100
1P010003	CALL OUT-¢SET V1 TO XXX KNOTS AND VR TO XXX KNOTS!	1	6	10	10	100
1P010004	CALL OUT-¢WHAT IS THE EPR SETTING!	1	1.5	10	10	100
1P010005	CALL OUT-¢SET EPR AT XXX!	1	2.5	10	10	100
1P010006	CALL OUT - ¢BEFORE START CHECKLIST!	1	2	10	10	100
1P010007	CALL OUT - ¢INTERIOR AND EXTERIOR PRE-FLIGHT CHECK!	1	3	10	10	100
1P010008	CALL OUT INCOMPLETE	1	1	10		100
1P010009	CALL OUT - ¢LIGHT TEST!	1	1.3	10	10	100
1P010010	CALL OUT -¢CHECKED!	1	1	10		100
1P010011	CALL OUT - ¢OXYGEN AND INTERPHONE!	1	1.3	10	10	
1P010012	CALL OUT - ¢CHECKED!	1	1	10		100
1P010013	CALL OUT - ¢YAW DAMPER !	1	1	10	10	100
1P010014	CALL OUT - ¢ON!	1	0.5	10		100
1P010015	CALL OUT - ¢FUEL!	1	0.5	10		100
1P010016	CALL OUT - ¢XXX LBS, OK FOR DISPATCH, ALL PUMPS ON!	1	4.5	10	10	100
1P010017	CALL OUT - ¢GALLEY POWER !	1	0.7	10	10	100
1P010018	CALL OUT - ¢EMERG EXT LTS!	1	1.2	10	10	100
1P010019	CALL OUT - ¢ARMED!	1	0.6	10		100
1P010020	CALL OUT - ¢SEAT BELT AND NO SMOKING LTS!	1	2	10	10	100
1P010021	CALL OUT - ¢AUTO!	1	0.5	10		100
1P010022	CALL OUT - ¢HYDRAULICS!	1	1	10	10	100
1P010023	CALL OUT - ¢AIR CONDITIONING AND PRESSURIZATION!	1	2	10	10	100
1P010024	CALL OUT - ¢1 PACK, BLEEDS ON, SET!	1	2.3	10	10	100
1P010025	CALL OUT - ¢AUTOPILOT!	1	0.5	10	10	100
1P010026	CALL OUT - ¢NORMAL!	1	0.7	10		100
1P010027	CALL OUT -¢DISEN-	1	0.8	10		100

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         GAGED!                                                  10        1P0
1P010028 CALL OUT-¢INSTRU-    1   0.8                           10      100
         MENTS!                                                  10
1P010029 CALL OUT -¢CROSS-    1     1                           10      100
         CHECKED!                                                10
1P010030 CALL OUT -¢ANTI-SKID 1   0.9                           10      100
1P010031 CALL OUT -¢AUTO      1   0.9                           10      100
         BRAKES!                                                 10
1P010032 CALL OUT-¢OFF!       1   0.5                           10      100
1P010033 CALL OUT -¢RADIOS,   1     2                           10      100
         RADAR,AND TRANS-                                        10
         PONDER!                                                 10
1P010034 CALL OUT- ¢SET AND   1   1.2                           10      100
         STANDBY!                                                10
1P010035 CALL OUT -¢SPEED     1   0.8                           10      100
         BRAKE!                                                  10
1P010036 CALL OUT -¢DOWN      1     1                           10      100
         DETENT!                                                 10
1P010037 CALL OUT -¢PARKING   1   0.7                           10      100
         BRAKE!                                                  10
1P010038 CALL OUT -¢SET!      1   0.5                           10      100
1P010039 CALL OUT -¢STAB TRIM 1   1.7                           10      100
         CUTOUT SWITCHES!                                        10
1P010040 CALL OUT -¢WHEEL     1     2                           10      100
         WELL FIRE WARNING!                                      10
1P010041 CALL OUT -¢RUDDER    1   1.5                           10      100
         AND AILERON TRIM!                                       10
1P010042 CALL -¢ZERO!         1   0.7                           10      100
1P010043 CALL OUT -¢PAPERS!   1   0.8                           10      100
1P010044 CALL OUT -¢ABOARD!   1   0.7                           10      100
1P010045 CALL OUT -¢ZFW,EPR,  1   2.5                           10      100
         AND IAS BUGS!                                           10
1P010046 CALL OUT -¢AIRCON-   1   1.3                           10      100
         DITIONING PACK!                                         10
1P010047 CALL OUT -¢PACKS OFF 1   0.9                           10      100
1P010048 CALL OUT -¢START     1   0.9                           10      100
         PRESSURE!                                               10
1P010049 CALL OUT -¢XXX PSI!  1   1.6                           10      100
1P010050 CALL OUT -¢ANTI-COL- 1   1.2                           10      100
         LISSION LT!                                             10
1P010051 CALL OUT -¢BEFORE    1   1.7                           10      100
         START CHECKLIST                                         10
         COMPLETE!                                               10
1P010052 CALL OUT -¢CONTINUE  1   1.7                           10      100
         BELOW THE LINE!                                         10
1P010053 INFORM GROUND CREW   1   1.4                           10      100
         ¢READY FOR PUSHBACK!                                    10
1P010054 GROUND CREW REPORTS  1   0.8                           10      100
         ¢ROGER!                                                 10
1P010055 RADIO COMM -¢CLEAR-  1   5.0                           10      100
         ANCE DELIVERY, THIS                                     10
         IS NASA 515 AT GATE                                     10
         X, IFR TO WASH NATL!                                    10
1P010056 MON RADIO COMM-¢NASA 1  4.26                           10 100
         515, IFR TO WASHING-                                    10
         TON NATIONAL, CLEARD                                    10
         AS FILED. CLIMB AND                                     10
1P010057 MAINTAIN FIVE THOU-  1  5.68                           10 100
         SAND FEET, NOISE                                        10
         ABATEMENT PROCEDURES                                    10
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	ARE IN EFFECT. CON-							
1P010058	TACT ATLANTA DEPAR	1	5.68					
	TURE ON ONE TWO FIVE							
	POINT SEVEN, SQUAWK							
	TWO TWO ONE POINT							
1P010059	THREE, OVER!	1	1.42					
1P010060	RADIO COMM -¢NASA	1	3.66					
	515, ROGER, CLEARED							
	AS FILED, MAINTAIN							
	FIVE THOUSAND, NOISE							
1P010061	ABATEMENT PROCEDURES	1	4.88					
	IN EFFECT. CONTACT							
	ATLANTA DEPARTURE ON							
	ONE TWO FIVE POINT!							
1P010062	MON RADIO COMM-	1	3.50					
	¢NASA 515, CLEARANCE							
	CORRECT. CONTACT							
	GROUND CONTROL ON							
1P010063	ONE TWO ONE POINT	1	2.50					
	NINER WHEN READY TO							
	TAXI!							
1P010064	RADIO COMM-¢NASA	1	1.7					
	515, ROGER!							
1P010065	MON RADIO COMM-	1	4.08					
	¢INFORMATION KILO?							
	ONE SIX ONE ZERO OB-							
	SERVATION, 3000							
1P010066	SCATTERED, CEILING	1	5.44					
	5000 BROKEN, VISIBI-							
	LITY TWO THREE, TEM-							
	PERATURE FIVE NINER,							
1P010067	WIND ONE ONE FIVE	1	5.44					
	DEGREES AT SEVEN							
	GUSTING TO ONE SIX,							
	ALTIMETER TWO NINER							
1P010068	EIGHT SIX. LANDINGS	1	5.44					
	RUNWAYS ZERO EIGHT,							
	NINER RIGHT. DEPAR-							
	TURES RUNWAYS ZERO							
1P010069	EIGHT, NINER LEFT.	1	5.44					
	NOISE ABATEMENT PRO-							
	CEDURES ARE IN EF-							
	FECT. ADVISE CON-							
1P010070	RADIO COMM -¢ATLANTA	1	4.00					
	GROUND CONTROL, THIS							
	IS NASA 515 AT GATE							
	X, REQUEST PERMIS-							
1P010071	SION TO PUSHBACK.	1	3.00					
	WE HAVE INFORMATION							
	KILO, OVER!							
1P010072	MON RADIO COMM-	1	4.50					
	¢NASA 515, ATLANTA							
	GROUND, ROGER. CLEAR							
	TO PUSHBACK. ADVISE							
1P010073	SEVEN, SQUAWK TWO	1	2.44					
	TWO ONE THREE, OVER!							
1P010074	TROLLER ON INITIAL	1	4.08					
	CONTACT YOU HAVE							
	INFORMATION KILO !							
1P010075	WHEN READY TO TAXI,	1	1.50					

	OVER.!			10		
1P010076	MON INTPH COMM - ¢ALL CLEAR!	1	.9	10	100	
1P020001	MON RADIO COMM - ¢ATC CLEARS NASA 515 AS FILED. SOCLE 9L DEPARTURE, ROUTE JAY	1	4	10	100	
1P020002	EIGHT ONE SIX R JASON ONE STAR. CLIMB AND MAINTAIN FLIGHT LEVEL THREE	1	4	10	100	
1P020003	THREE ZERO. CONTACT ATLANTA DEPARTURE ON 125.7, SQUAWK 2213, OVER!	1	4	10	100	
1P020004	RADIO COMM - ¢NASA 515, ROGER. CLEARED AS FILED. SOCLE 9L DEPARTURE, ROUTE JAY	1	4	10		100
1P020005	EIGHT ONE SIX R, JASON ONE STAR. CLIMB AND MAINTAIN FLIGHT LEVEL THREE	1	4	10		100
1P020006	THREE ZERO. DEPARTURE ON 125.7, SQUAWK 2213, OVER.!	1	4	10		100
1P020007	CALL OUT-¢FLIGHT PLAN ENTERED AND CHECKED!	1	2	10		100
1P020008	CALL OUT-¢EADI!	1	1	10		100
1P020009	CALL OUT -¢ON AND CHECKED!	1	1	10		100
1P020010	CALL OUT -¢MFD!	1	.6	10		100
1P020011	CALL OUT -¢MCDU!	1	1	10		100
1P020012	CALL OUT- ¢AGCS!	1	1	10		100
1P020013	CALL OUT-¢ATT CWS!	1	1.2	10		100
1P030001	MON INTPHN COMM - ¢ALL CLEAR!	1	0.9	10	100	
1P030002	INTPHN COMM - ¢STARTING NO.2!	1	1.3	10		100
1P030003	INTPHN COMM - STARTING NO.1!	1	1.3	10		100
1P030004	CALL OUT -¢AFTER START CHECKLIST!	1	1.5	10		100
1P030005	CALL OUT -¢ELECTRICAL!	1	0.8	10		100
1P030006	CALL OUT- ¢GENERATORS ON!	1	1.2	10		100
1P030007	CALL OUT -¢PITOT HEAT!	1	0.9	10		100
1P030008	CALL OUT- ¢ANTI-ICE!	1	0.9	10		100
1P030009	CALL OUT -¢NOT REQD!	1	1	10		100
1P030010	CALL OUT-¢AIR CONDITIONING AND PRESSURIZATION!	1	1.6	10		100
1P030011	CALL OUT-¢PACKS ON, FLT!	1	1.3	10		100
1P030012	CALL OUT -¢START SWITCHES!	1	0.9	10		100
1P030013	CALL OUT -¢FLT!	1	0.6	10		100

1P030014	CALL OUT -¢APU!	1	0.8	10		100
1P030015	CALL OUT -¢OFF!	1	.5	10		100
1P030016	CALL OUT -¢START	1	1	10		100
	LEVERS!			10		
1P030017	CALL OUT -¢OFF!	1	0.5	1[illegible]		100
1P030018	CALL OUT-¢CHECKLIST	1	1.4	10		100
	COMPLETED!			10		
1P040001	MON RADIO COMM -	1	3.0	10	100	
	¢NASA 515, CROSS			10		
	RUNWAY ZERO EIGHT,			10		
	OVER!			10		
1P040003	RADIO COMM -¢NASA	1	1.7	10		100
	515, ROGER!			10		
1P040030	MON RADIO COMM-	1	3.0	10	100	
	¢NASA 515, HOLD			10		
	SHORT OF NEXT INTER-			10		
	SECTION, CLEARED			10		
1P040031	BEHIND EASTERN TRI-	1	2.0	10	100	
	JET, OVER!			10		
1P040032	MON RADIO COMM -	1	3.0	10	100	
	¢NASA 515, CONTACT			10		
	ATLANTA TOWER ON ONE			10		
	ONE NINER POINT			10		
1P040033	FIVE, OVER.!	1	1.0	10	100	
1P040034	RADIO COMM -¢NASA	1	3.0	10		100
	515 ROGER, ONE ONE			10		
	NINER POINT FIVE.!			10		
1P040035	RADIO COMM -¢ATLANTA	1	3.50	10		100
	GROUND CONTROL, NASA			10		
	515 READY TO TAXI,			10		
	OVER!			10		
1P040036	MON RADIO COMM -	1	3.50	10	100	
	¢NASA 515, TAXI TO			10		
	RUNWAY NINER LEFT			10		
	VIA NORTHEAST-SOUTH-			10		
1P040037	WEST TAXIWAY. HOLD	1	3.50	10	100	
	SHORT OF RUNWAY ZERO			10		
	EIGHT, OVER!			10		
1P040038	RADIO COMM -¢NASA	1	3.75	10		100
	515, ROGER. TAXI			10		
	RUNWAY NINER LEFT,			10		
	HOLD SHORT RUNWAY			10		
1P040039	ZERO EIGHT.!	1	1.25	10		100
1P070001	CALL OUT -¢80 KNOTS!	1	1.1	10		100
1P070002	CALL OUT -¢V1!	1	0.9	10		100
1P070003	CALL OUT -¢VR!	1	0.9	10		100
1P070004	CALL OUT -¢GEAR UP!	1	1.1	10		100
1P070005	RADIO COMM -¢ATLANTA	1	3.6	10		100
	TOWER, THIS IS NASA			10		
	515. READY FOR TAKE-			10		
	OFF, RUNWAY NINER			10		
1P070006	LEFT, OVER!	1	1.2	10		100
1P070007	MON RADIO COMM -	1	2.5	10	100	
	¢NASA 515, TAXI INTO			10		
	POSITION AND HOLD,			10		
	OVER!			10		
1P070008	RADIO COMM - ¢515,	1	2.5	10		100
	TAXI INTO POSITION			10		
	AND HOLD, ROGER!			10		
1P070009	NON RADIO COMM -	1	2.5	10	100	

	¢NASA 515 CLEARED FOR IMMEDIATE TAKE-OFF!			10		
1P070010	RADIO COMM -¢515 ROLLING!	1	1.5	10		100
1P070011	CALL OUT -¢TAKEOFF FLAPS!	1	1	10		100
1P070012	CALL OUT -¢BEFORE TAKEOFF CHECKLIST!	1	1.5	10		100
1P070013	CALL OUT- ¢RECALL!	1	1	10		100
1P070014	CALL OUT-¢CHECKED!	1	0.8	10		100
1P070015	CALL OUT-¢FLIGHT CONTROLS!	1	1	10		100
1P070016	CALL OUT-¢FLAPS!	1	0.6	10		100
1P070017	CALL OUT -¢15,GREEN LIGHT!	1	1	10		100
1P070018	CALL OUT-¢STABILIZER TRIM!	1	1.2	10		100
1P070019	CALL OUT-¢COCKPIT DOOR!	1	1	10		100
1P070020	CALL OUT-¢LOCKED!	1	0.7	10		100
1P070021	CALL OUT-¢TAKEOFF BRIEFING!	1	1	10		100
1P070022	CALL OUT-¢FLY RUN-WAY HEADING UNTIL CROSSING RUNWAY 27R MIDDLE MARKER. TURN	1	4.5	10		100
1P070023	TO HEADING 105 AND CLIMB AND MAINTAIN 5000. EXPECT VECTORS AFTER NEW HEADING!	1	5.5	10		100
1P070024	CALL OUT-¢ROGER!	1	0.6	10		100
1P070025	CALL OUT-¢TRANSPON-DER AND RADAR!	1	1.5	10		100
1P070026	CALL OUT- ¢ON!	1	0.5	10		100
1P070027	CALL OUT-¢INBOARD LANDING LIGHTS!	1	1.5	10		100
1P070028	CALL OUT-¢BEFORE TAKEOFF CHECKLIST COMPLETE!	1	2.2	10		100
1P070029	CALL OUT-¢XX UNITS!	1	1.4	10		100
1P070030	CALL OUT -¢TRANSPON-DER!	1	.7	10		100
1P070031	CALL OUT -¢AGCS!	1	1.1	10		100
1P070032	CALL OUT -¢ATT CWS!	1	1.1	10		100
1P070033	CALL- GEAR UP,LOCKED	1	1.1	10		100
1P070034	CALL- V2 PLUS 15	1	1.1	10		100
1P090001	MON RADIO COMM - ¢NASA 515, CONTACT ATLANTA DEPARTURE ON ONE TWO FIVE POINT	1	4.5	10	100	
1P090002	RADIO COMM -¢NASA 515, ROGER!	1	1.7	10		100
1P090003	RADIO COMM -¢ATLANTA DEPARTURE CONTROL, THIS IS NASA 515, OVER!	1	3.5	10		100
1P090005	MON RADIO COMM- ¢NASA 515, ATLANTA DEPARTURE, ROGER.	1	3.5	10	100	

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         SQUAWK IDENT!                                                  10
1P090006 MON RADIO COMM -      1    3.2                                10 100
         ¢NASA 515, RADAR                                               10
         CONTACT, SAY ALTI-                                             10
         TUDE, OVER!                                                    10
1P090007 RADIO COMM -¢NASA     1    2.3                                10      100
         515, LEAVING ONE                                               10
         EIGHT HUNDRED!                                                 10
1P090008 MON RADIO COMM-       1    3.1                                10 100
         (NASA 515, CLIMB AND                                           10
         MAINTAIN FLIGHT LVL                                            10
         230. CONTACT ATLANTA                                           10
1P090009 CENTER ON ONE TWO     1    3.1                                10 100
         THREE POINT NINER                                              10
         FIVE, OVER!                                                    10
1P090010 RADIO COMM -¢515,     1    3.5                                10      100
         ROGER. CLIMB AND                                               10
         MAINTAIN FLIGHT                                                10
         LEVEL TWO THREE ZERO                                           10
1P090011 , CONTACT CENTER ON   1    3.5                                10      100
         ONE TWO THREE POINT                                            10
         NINER FIVE, GOOD                                               10
         DAY!                                                           10
1P090012 RADIO COMM -          1    .45                                10      100
         ¢ATLANTA CENTER,                                               10
         THIS IS NASA 515 OUT                                           10
         OF 11000 FOR FL230,                                            10
1P090013 OVER!                 1     .5                                10      100
1P090014 MON RADIO COMM -      1    3.5                                10 100
         ¢NASA 515, THIS IS                                             10
         ATLANTA CENTER,                                                10
         ROGER. SQUAWK IDENT!                                           10
1P090015 MON RADIO COMM -      1    3.5                                10 100
         ¢NASA 515, RADAR                                               10
         CONTACT. REPORT                                                10
         LEAVING FL210,OVER!                                            10
1P090016 RADIO COMM - ¢NASA    1    3.5                                10      100
         515, RAGER. REPORT                                             10
         FLIGHT LEVEL TWO ONE                                           10
         ZERO!                                                          10
1P090017 CALL OUT- ¢AFTER      1    1.2                                10      100
         TAKEOFF CHECKLIST!                                             10
1P090018 CALL OUT- ¢START      1    0.9                                10      100
         SWITCHES!                                                      10
1P090019 CALL OUT- -¢OFF!      1    0.5                                10      100
1P090020 CALL OUT -¢LANDING    1    0.9                                10      100
         GEAR!                                                          10
1P090021 CALL OUT-¢UP AND      1      1                                10      100
         OFF!                                                           10
1P090022 CALL OUT -¢FLAPS!     1    0.6                                10      100
1P090023 CALL OUT -¢AFTER      1    1.9                                10      100
         TAKEOFF CHECKLIST                                              10
         COMPLETE!                                                      10
1P090024 SEVEN, GOOD-DAY SIR!  1    1.5                                10 100
1P090025 MON RADIO COMM -      1    3.0                                10 100
         ¢NASA 515, FOR VEC-                                            10
         TOR TO INTERCEPT JAY                                           10
         THIRTY SEVEN, TURN                                             10
1P090026 LEFT HEADING ZERO     1    4.0                                10 100
         SEVEN ZERO, CLIMB                                              10
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	AND MAINTAIN NINER THOUSAND, OVER!			10			
1P090027	RADIO COMM -¢NASA 515, ROGER. LEFT HEADING ZERO SEVEN ZERO, MAINTAIN NINER	1	4.0	10		100	
1P090028	THOUSAND.!	1	.5	10		100	
1P090029	MON RADIO COMM - ¢NASA 515, CLIMB AND MAINTAIN ONE TWO THOUSAND, OVER!	1	3.5	10	100		
1P090030	RADIO COMM - ¢NASA 515, ROGER. MAINTAIN ONE TWO THOUSAND!	1	2.8	10		100	
1P090031	MON RADIO COMM - ¢NASA 515, MAINTAIN FLIGHT LEVEL ONE EIGHT ZERO. TRAFFIC	1	3.75	10	100		
1P090032	TWELVE OOCLOCK, FOUR MILES, NORTHEAST BOUND, C-130 ASSIGND FLIGHT LEVEL ONE	1	5.00	10	100		
1P090033	NINER ZERO, OVER!	1	1.25	10	100		
1P090034	RADIO COMM -¢NASA 515, ROGER. MAINTAIN ¢NASA 515, CLIMB AND FLIGHT LEVEL ONE EIGHT ZERO. WE HAVE	1	4.0	10		100	
1P090035	TRAFFIC IN SIGHT!	1	1.0	10		100	
1P090036	MON RADIO COMM - ¢NASA 515, CLEAR OF TRAFFIC, CLIMB AND MAINTAIN FLIGHT	1	3.0	10	100		
1P090037	LEVEL TWO THREE ZERO , REPORT LEAVING FLIGHT LEVEL TWO ONE ZERO, OVER!	1	4.0	10	100		
1P090038	RADIO COMM - ¢NASA 515, ROGER. MAINTAIN TWO THREE ZERO. REPORT LEAVING TWO	1	3.5	10		100	
1P090039	ONE ZERO.!	1	.5	10		100	
1P090040	RADIO COMM -¢ATLANTA CENTER, NASA 515. LEAVING FLIGHT LEVEL TWO ONE ZERO, OVER!	1	4.0	10		100	
1P090041	MON RADIO COMM - ¢NASA 515, ROGER. CLIMB AND MAINTAIN FLIGHT LEVEL THREE	1	3.5	10	100		
1P090042	ONE ZERO. CONTACT CENTER ON ONE THREE THREE POINT SEVEN, OVER!	1	3.5	10	100		
1P090043	RADIO COMM -¢NASA 515, ROGER. MAINTAIN FLIGHT LEVEL THREE ONE ZERO. CENTER ON	1	3.7	10		100	
1P090044	ONE THREE THREE POINT SEVEN.!	1	2.3	10		100	
				10			

1P090045	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515 OUT OF FLIGHT LEVEL TWO THREE ZERO	1	3.7	10		100
1P090046	FOR TWO NINER ZERO, OVER!	1	2.3	10		100
1P090047	MON RADIO COMM - ¢NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT. REPORT	1	3.7	10	100	
1P090048	LEAVING FLIGHT LEVEL TWO EIGHT ZERO, OVER!	1	3.3	10	100	
1P090049	RADIO COMM -¢NASA 515, ROGER. REPORT FLIGHT LEVEL TWO EIGHT ZERO.!	1	4.0	10	100	
1P090050	RADIO COMM -¢ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO EIGHT ZERO,OVER!	1	4.0	10		100
1P090051	MON RADIO COMM- ¢NASA 515, ROGER. CLIMB AND MAINTAIN FLIGHT LEVEL TWO	1	3.5	10	100	
1P090052	NINER ZERO, OVER!	1	1.5	10	100	
1P090053	RADIO COMM -¢NASA 515, ROGER. MAINTAIN FLIGHT LEVEL TWO NINER ZERO.!	1	4.0	10		100
1P090054	MON RADIO COMM - ¢NASA 515, CLIMB AND MAINTAIN FLIGHT LVL THREE THREE ZERO.	1	3.5	10	100	
1P090055	CONTACT CENTER ON ONE THREE FOUR POINT FIVE FIVE, OVER!	1	3.5	10	100	
1P090056	RADIO COMM -¢NASA 515, ROGER. MAINTAIN FLIGHT LEVEL THREE THREE ZERO, CENTER	1	4.0	10		100
1P090057	ON ONE THREE FOUR POINT FIVE FIVE.!	1	2.0	10		100
1P090058	RADIO COMM -¢ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO NINER ZERO FOR	1	4.0	10		100
1P090059	FLIGHT LEVEL THREE THREE ZERO, OVER!	1	2.0	10		100
1P090060	MON RADIO COMM - ¢NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT	1	3.5	10	100	
1P090061	MON RADIO COMM - ¢NASA 515, RADAR CONTACT. REPORT LEVEL AT FLIGHT	1	3.5	10	100	
1P090062	LEVEL THREE THREE ZERO, OVER!	1	2.0	10	100	
1P090063	CALL OUT-¢FLAPS 1!	1	.8	10		100

1P090064	CALL OUT -¢FLAPS ZERO!	1	.8	10		100	
1P090065	CALL OUT - ¢SPARTAMBURG VOR ON NAV 2!	1	2.5	10		100	
1P090066	CALL OUT - ¢GORDONSVILL VOR ON NAV 1!	1	2.5	10		100	
1P090067	CALL OUT - ¢ONE THOUSAND FEET TO LEVEL OF!	1	1.7	10		100	
1P090068	RADIO COMM - ¢ATLANTA DEPARTURE, THIS IS NASA 515, OVER!	1	3.1	10		100	
1P090069	MON RADIO COMM - ¢NASA 515, CONTACT ATLANTA CENTER ON ONE TWO THREE POINT	1	4	10	100		1P0
1P090070	NINER FIVE, OVER!	1	1.5	10	100		
1P090073	RADIO COMM - ¢NASA 515, ROGER, ONE TWO THREE POINT NINER FIVE.!	1	3.7	10	100		
1P090074	MON RADIO COMM - ¢NASA 515, ROGER, CONTACT CENTER ON ONE THREE THREE	1	4	10	100		
1P090075	POINT SEVEN, OVER!	1	1	10	100		
1P090076	RADIO COMM - ¢515, ROGER, ONE THREE THREE POINT SEVEN.!	1	3.1	10		100	
1P090077	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515 LEAVING FLIGHT LEVEL TWO ONE ZERO	1	3.4	10		100	
1P090078	FOR FLIGHT LEVEL THREE THREE ZERO, OVER.!	1	3.4	10		100	
1P090079	MON RADIO COMM - ¢NASA 515, MAINTAIN FLIGHT LEVEL TWO SIX ZERO. TRAFFIC AT	1	3	10	100		
1P090080	TWELVE O"CLOCK FOUR MILES, NORTHEAST BOUND, C-130 ASSIGNED FLIGHT LEVEL TWO	1	4.2	10	100		
1P090081	SEVEN ZERO, OVER!	1	2	10	100		
1P090082	RADIO COMM- ¢515, ROGER, MAINTAIN FLIGHT LEVEL TWO SIX ZERO, WE HAVE TRAF-	1	3.3	10		100	
1P090083	FIC IN SIGHT.!	1	1.1	10		100	
1P090084	MON RADIO COMM - ¢NASA 515, CLEAR OF TRAFFIC, CLIMB AND MAINTAIN FLIGHT LEV-	1	3.1	10	100		
1P090085	EL THREE THREE ZERO. REPORT LEAVING TWO EIGHT ZERO, OVER.!	1	3.1	10	100		
1P090086	RADIO COMM -¢515,	1	3	10		100	

	ROGER. MAINTAIN THREE THREE ZERO, REPORT LEAVING TWO			10		
1P090087	EIGHT ZERO.!	1	1	10		100
1P090088	MON RADIO COMM - ¢NASA 515, CLIMB AND MAINTAIN FLIGHT LEV- EL THREE ONE ZERO,	1	3	10	100	
1P090089	OVER.!	1	.5	10	100	
1P090090	RADIO COMM - ¢515, ROGER. MAINTAIN FLIGHT LEVEL THREE ONE ZERO.!	1	3	10		100
1P090091	RADIO COMM -¢ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEV- EL THREE ONE ZERO	1	3	10		100
1P090092	FOR FLIGHT LEVEL THREE THREE ZERO, OVER.!	1	3	10		100
1P090093	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515 OUT OF ELEVEN THOUSAND FOR FLIGHT	1	4	10		100
1P090094	LEVEL THREE THREE ZERO, OVER.!	1	1.5	10		100
1P090095	CALL OUT -¢ALTIMETER BARO SETTING IS TWO NINE POINT NINE TWO!	1	3	10		100
1P090096	CALL OUT- ¢SPARTAN- BUR VOR IS ON NAV 1!	1	2	10		100
1PB9EA01	CALL OUT-(INITATE FIRE CONTROL PROC.)	1	1.5	10		100
1PB9EA02	CALL OUT(MONITORING NO.1 FIRE WARNING LIGHT)	1	2.00	10		100
1PB9EA04	CALL OUT (THRUST LEVER TO IDLE)	1	1.3	10		100
1PB9EA06	CALL OUT (NO.1 START LEVER TO CUT OFF)	1	1.4	10		100
1PB9EA08	CALL OUT (FIRE WARNING SWITCH PULL)	1	1.3	10	100	
1PB9EA10	CALL OUT (FIRE WARNING STILL ON, HANDLE ROTATION NOW)	1	3.0	10		100
1PB9EA11	CALL OUT (LEFT BOTTLE DISCHARGING)	1	1.5	10		100
1PB9EA12	CALL OUT (FIRE EXTINGUISHED)	1	.5	10		100
1PB9EA13	RADIO COMM (ALT DEP CONTROL-NASA 515- ENGINE FIRE-EXT.- REQ.EMERG.APP.)	1	6.8	10		100
1PB9EA14	RADIO COMM(NASA-515 UNDERSTAND ENG.FIRE OUT-EMERG.APP REQ- TURN LEFT 360 DEGREE	1	3.8	10		100
1PB9EA27	MAINTAIN SPEED AND ALTITUDE SQUWNK 7700	1	3.0	10		100

	+ IDENT)				10	
1PB9EA15	RADIO COMM(ALT.D.C.- 515 TURN LEFT 360DEG MAINTAIN A/S+HDG SQ.7700+IDENT)	1	11.		10 10 10 10	100
1PB9EA16	CALL OUT(MASTER FIRE WARNING OFF)	1	1.5	20	10 10	100
1PB9EA17	CALL OUT(ENG.NO.1 THRUST LEVER TO IDLE)	1	1.5	20	10 10 10	100
1PB9EA18	CALL OUT(ENG.NO.1 START LEVER OFF)	1	1.5	20	10 10	100
1PB9EA19	CALL OUT(ENG.FIRE WARNING SW PULLED)	1	1.5	20	10 10	100
1PB9EA20	CALL OUT(ISOLATION VALVE SW. CLOSED)	1	1.5	20	10 10	100
1PB9EA21	CALL OUT(APU BLEED VALVE OFF)	1	1.5	20	10 10	100
1PB9EA22	CALL OUT(APU START)	1	1.5		10	100
1PB9EA23	CALL OUT(FUEL,ELEC., AND WING ANTI-ICE ADJUSTED)	1	3.5	20	10 10 10	100
1PB9EA24	CALL OUT(NO.1 AFT +FWD FUEL AND GEN. SW. OFF)	1	4.2		10 10 10	100
1PB9EA25	CALL OUT(WING ANTI-ICE ADJUSTED)	1	1.5		10 10	100
1PB9EA26	CALL OUT(MASTER CAUTION LIGHT OFF)	1	1.5		10 10	100
1P09FE01	CALL OUT-¢SYS B PUMP NO. 1 OVERHEATED!	1	2.7		10 10	100
1P09FE02	CALL OUT-¢PUMP SWITCH OFF!	1	1.5		10 10	100
1P09FE03	CALL OUT-¢CHECKLIST COMPLETE!	1	1.6		10 10	100
1P11FD01	CALL OUT-¢SYSTEM B LOW PRESSURE!	1	2		10 10	100
1P11FD02	CALL OUT-¢SYSTEM B FLT CONTROL SW-STBY RUDDER!	1	3.7		10 10 10	100
1P11FD03	CALL OUT-¢SYSTEM B HYD PUMPS-OFF!	1	3		10 10	100
1P11FD04	CALL OUT-¢AUTOPILOT HYD SYS SELECTOR-SYS A!	1	4.2		10 10 10	100
1P11AF01	CALL OUT-¢NO 2 OIL FILTER BYPASS!	1	3.2		10 10	100
1P11AF02	CALL OUT-¢LITE OUT AT XXX EPR!	1	3.5		10 10	100
1P11CB01	CALL OUT-¢ELECTRICAL FAILURE!	1	2.1		10 10	100
1P11CB02	CALL OUT-¢NO 2 CSD LOW OIL PRESSURE!	1	4		10 10	100
1P11CB03	CALL OUT-¢APU ON NO. 2 BUS!	1	3.7		10 10	100
1P11CB04	CALL OUT-¢GEN DRIVE DISCONNECT SWITCH-DISCONNECT!	1	3.7		10 10 10	100
1P11CB05	CALL OUT-¢APU-START, ON BUS!	1	4		10 10	100

1P110001	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515 LEVEL AT FLIGHT LEVEL THREE THREE	1	4.0	10		100
1P110002	ZERO, OVER!	1	.2	10		100
1P110003	MON RADIO COMM - ¢NASA 515, ROGER!	1	1.7	10		100
1P110004	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515. REQUEST VECTORS FOR RETURN TO	1	4.0	10		100
1P110005	ATLANTA, OVER!	1	1.0	10		100
1P110006	MON RADIO COMM - ¢NASA 515, ROGER. STANDBY FOR INSTRUC-TIONS!	1	3.0	10	100	
1P110007	NON RADIO COMM - ¢NASA 515, FOR VEC-TOR TO INTERCEPT LANIER SIX ARRIVAL,	1	3.66	10	100	
1P110008	PULASKI TRANSITION, TURN LGFT HEADING TWO SEVEN ZERO. CON-TACT ATLANTA CENTER	1	4.88	10	100	
1P110009	ON ONE THREE FIVE POINT THREE FIVE, OVER!	1	2.44	10	100	
1P110010	RADIO COMM -¢515, ROGER. LEFT HEADING TWO SEVEN ZERO, LANIER SIX ARRIVAL,	1	4.0	10		100
1P110011	CENTER ONE THREE FIVE POINT THREE FIVE.!	1	3.0	10		100
1P110012	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515 LEVEL AT THREE THREE ZERO TURNING	1	3.5	10		100
1P110013	TO TWO SEVEN ZERO, OVER!	1	1.5	10		100
1P110014	MON RADIO COMM - ¢NASA 515, ROGER. SQUAWK IDENT!	1	2.5	10	100	
1P110015	MON RADIO COMM- ¢NASA 515, RADAR CONTACT!	1	2.0	10	100	
1P110016	MON RADIO COMM - ¢NASA 515, DESCEND AND MAINTAIN FLIGHT LEVEL THREE ONE ZERO	1	3.5	10	100	
1P110017	. CONTACT CENTER ON ONE THREE TWO POINT SEVEN FIVE, OVER!	1	3.5	10	100	
1P110018	RADIO COMM -¢NASA 515, ROGER. MAINTAIN FLIGHT LEVEL THREE ONE ZERO, CENTER	1	4.0	10		100
1P110019	ONE THREE TWO POINT SEVEN FIVE.	1	2.0	10		100
1P110020	CALL OUT -¢PULASKI	1	2.5	10		100

	VOR ON NAV 1!			10			
1P130001	NON RADIO COMM - ¢NASA 515, FOR VECTORS TO INTERCEPT JAY EIGHT FIFTEEN R,	1	3.7	10	100		
1P130002	TURN LEFT HEADING TWO SEVEN ZERO, OVER	1	2.5	10	100		
1P130003	RADIO COMM - ¢515, ROGER. LEFT HEADING TWO SEVEN ZERO!	1	2.7	10		100	
1P130004	MON RADIO COMM - ¢NASA 515, YOU ARE CLEARED TO THE ATLANTA INTERNATIONAL	1	4.5	10	100		
1P130005	AIRPORT VIA JAY EIGHT FIFTEEN R AND SHINE OH ONE STAR. PTA AT LAKESIDE IS	1	4.5	10	100		
1P130006	TEN TWENTY ONE OH OH, OVER!	1	.5	10	100		
1P130007	MON RADIO COMM - ¢NASA 515, CONTACT CENTER ON ONE THREE FIVE POINT THREE	1	4	10	100		
1P130008	FIVE, OVER!	1	.3	10	100		
1P130009	RADIO COMM - ¢515, ROGER. ONE THREE FIVE POINT THREE FIVE!	1	3.1	10		100	1P1
1P130010	RADIO COMM - ¢515, ROGER. CLEARED TO ATLANTA VIA SHINE OH ONE. PTA LAKESIDE	1	4	10		100	
1P130011	TEN TWENTY ONE OH OH.!	1	3.5	10		100	
1P140001	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515 LEAVING FLIGHT LEVEL THREE THREE	1	4.0	10		100	
1P140002	ZERO FOR FLIGHT LVL THREE ONE ZERO, OVER	1	2.0	10		100	
1P140003	NON RADIO COMM - ¢NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT!	1	3.0	10	100		
1P140004	MON RADIO COMM - ¢NASA 515, RADAR CONTACT!	1	2.0	10	100		
1P140005	MON RADIO COMM - ¢NASA 515, FOR VECTOR TO INTERCEPT PULASKI TWO TWO FIVE	1	3.27	10	100		
1P140006	RADIAL, TURN LEFT HEADING TWO FOUR ZERO, CLEARED TO THE ATLANTA INTERNA-	1	4.36	10	100		
1P140007	TIONAL AIRPORT VIA THE LANIER SIX ARRIVAL, PULASKI TRANSITION, OVER!	1	4.36	10	100		

1P140008	RADIO COMM -¢515, ROGER. LEFT HEADING TWO FOUR ZERO FOR PULASKI TWO TWO FIVE	1	4.0	10		100
1P140009	RADIAL, LANIER SIX ARRIVAL.!	1	2.0	10		100
1P140010	MON RADIO COMM - ¢NASA 515, CONTACT CENTER ON ONE THREE TWO POINT EIGHT,OVER	1	3.5	10	100	
1P140011	RADIO COMM -¢NASA 515, ROGER. ONE THREE TWO POINT EIGHT.!	1	3.5	10		100
1P140012	RADIO COMM -¢ATLANTA CENTER, NASA 515 LEVEL AT FLIGHT LVL THREE ONE ZERO,OVER!	1	4.0	10		100
1P140013	MON RADIO COMM - ¢NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT!	1	3.0	10	100	
1P140014	MON RADIO COMM- ¢NASA 515, RADAR CONTACT!	1	2.0	10	100	
1P140015	MON RADIO COMM - ¢NASA 515, DESCEND AND MAINTAIN FLIGHT LEVEL TWO FOUR ZERO.	1	3.9	10	100	
1P140016	REPORT LEAVING FLT LEVEL TWO SIX ZERO, OVER!	1	2.6	10	100	
1P140017	RADIO COMM -¢515, ROGER. MAINTAIN FLT LEVEL TWO FOUR ZERO. REPORT FLIGHT LEVEL	1	4.0	10		100
1P140018	TWO SIX ZERO!	1	1.0	10		100
1P140019	RADIO COMM -¢ATLANTA CENTER, NASA 515 LEAVING FLIGHT LEVEL TWO SIX ZERO, OVER!	1	4.0	10		100
1P140020	MON RADIO COMM - ¢NASA 515, DESCEND AND MAINTAIN ONE ONE THOUSAND. CONTACT	1	3.75	10	100	
1P140021	CENTER ON ONE TWO FIVE POINT TWO,OVER!	1	2.50	10	100	
1P140022	RADIO COMM -¢NASA 515, ROGER. MAINTAIN ONE ONE THOUSAND, CENTER ONE TWO FIVE	1	4.0	10		100
1P140023	POINT TWO.!	1	1.0	10		100
1P140024	RADIO COMM -¢ATLANTA CENTER, THIS IS NASA 515 LEAVING FLIGHT LEVEL TWO FIVE ZERO	1	4.0	10		100
1P140025	FOR ONE ONE THOU- SAND, OVER!	1	2.0	10		100
1P140026	MON RADIO COMM - ¢NASA 515, ATLANTA	1	3.5	10	100	

	CENTER, ROGER. SQUAWK IDENT. ALTI-			10			
1P140027	METER TWO NINER POINT EIGHT EIGHT!	1	2.5	10	100		
1P140028	MON RADIO COMM - ¢NASA 515, MAINTAIN ONE FIVE THOUSAND. CLEARANCE LIMIT IS	1	4.8	10	100		
1P140029	NOW LANIER INTERSEC- TION. HOLD NORTHWEST OF FIX ON NORCROSS ZERO FOUR ONE RADIAL	1	5.33	10	100		
1P140030	ONE AND ONE-HALF MINUTE RIGHT TURNS. EXPECT FURTHER CLEARANCE AT ONE	1	5.33	10	100		
1P140031	SEVEN ONE FIVE.OVER!	1	1.33	10	100		
1P140032	RADIO COMM -¢515, ROGER. MAINTAIN ONE FIVE THOUSAND. HOLD NORTHWEST OF LANIER	1	4.5	10		100	
1P140033	INTERSECTION, RIGHT TURNS.!	1	1.5	10		100	
1P140034	MON RADIO COMM - ¢NASA 515, CLEARED TO ATLANTA INTER- NATIONAL AIRPORT VIA	1	3.27	10	100		
1P140035	LAST ROUTING CLEARED . INCREASE SPEED TO TWO THREE ZERO KNOTS . DESCEND AND MAIN-	1	4.36	10	100		
1P140036	TAIN ONE ONE THOU- SAND. EXPECT AN ILS RUNWAY ZERO EIGHT APPROACH. OVER!	1	4.36	10	100		
1P140037	RADIO COMM -¢515, ROGER. INCREASE SPD TWO THREE ZERO. MAINTAIN ONE ONE	1	4.5	10		100	
1P140038	THOUSAND!	1	.5	10		100	
1P140039	MON RADIO COMM - ¢NASA 515, CONTACT APPROACH CONTROL ON ONE TWO SIX POINT	1	4.8	10	100		
1P140040	NINER, OVER!	1	1.8	10	100		
1P140041	RADIO COMM -¢NASA 515, ROGER. APPROACH ON ONE TWO SIX POINT NINER!	1	4.8	10		100	
1P140042	CALL OUT -¢TOCCOA VOR ON NAV 2 !	1	2.3	10		100	
1P140043	CALL OUT -¢ALTIMETER SETTING IS TWO NINER POINT EIGHT!	1	2.4	10		100	
1P140044	CALL OUT -¢NORCROSS VOR ON NAV 1 !	1	2.3	10		100	
1P140045	CALL OUT -¢1000 FEET TO LEVEL OFF!	1	1.7	10		100	
1P140046	CALL OUT -¢CHATA- NOOGA VOR ON NAV 2!	1	2.3	10		100	

1P140047	CALL OUT -¢THIRTY SECONDS!	1	.8	10		100
1P140048	CALL OUT -¢SIXTY SECONDS!	1	.8	10		100
1P140049	CALL OUT -¢EIGHTY FIVE SECONDS!	1	.8	10		100
1P150001	MON RADIO COMM - ¢NASA 515, REPORT LEAVING FLIGHT LEVEL TWO SIX ZERO. ALTI-	1	4	10	100	
1P150002	METER TWO NINER EIGHT EIGHT, OVER!	1	2	10	100	
1P150003	RADIO COMM - ¢515 ROGER. REPORT FLIGHT LEVEL TWO SIX ZERO.!	1	3	10		100
1P150005	MON RADIO COMM - ¢NASA 515, ROGER. CONTACT CENTER ON ONE TWO FIVE POINT	1	3	10	100	
1P150006	TWO, OVER.!	1	1.5	10	100	
1P150007	RADIO COMM - ¢515. ROGER. CENTER ONE TWO FIVE POINT TWO.!	1	3.3	10		100
1P150008	MON RADIO COMM - ¢NASA 515, ATLANTA CENTER, ROGER. SQUAWK IDENT!	1	3.7	10	100	
1P150009	MON RADIO COMM - ¢NASA 515, DUE TO TRAFFIC YOUR PLANNED TIME OF ARRIVAL AT	1	4	10	100	
1P150010	LAKESIDE IS NOW 10:22:15 , OVER!	1	4	10	100	
1P150011	RADIO COMM - ¢515. ROGER, TIME OF AR- RIVAL NOW 10:22:15!	1	4.5	10		100
1P150012	CALL OUT -¢FLIGHT PLAN UPDATED WITH NEW ALTITUDE!	1	2	10		100
1P150013	CALL OUT -¢ALTIMETER BARD SETTING IS TWO NINER EIGHT EIGHT¢	1	2.7	10		100
1P150014	CALL OUT -¢FLIGHT PLAN UPDATED WITH NEW PTA AT LAKESIDE!	1	3	10		100
1P160001	MON RADIO COMM - ¢INFORMATION LIMA: ONE SEVEN ZERO FIVE OBSERVATION- TWO	1	3.42	10	100	
1P160002	FIVE HUNDRED SCAT- TERED CEILING FOUR THOUSAND BROKEN. VISIBILITY ONE SIX.	1	4.56	10	100	
1P160003	TEMPERATURE FIVE NINER. WIND ONE ONE ZERO DEGREES AT TEN GUSTING TO ONE SEVEN	1	4.56	10	100	
1P160004	. ALTIMETER TWO - NINER EIGHT FOUR. SIMULTANEOUS PARAL-	1	4.56	10	100	

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	LEL APPROACHES IN			10			
1P160005	OPERATION ON RUNWAYS	1	4.56	10	100		
	ZERO EIGHT AND NINER			10			
	RIGHT. ADVISE CON-			10			
	TROLLER ON INITIAL			10			
1P160006	CONTACT YOU HAVE IN-	1	2.28	10	100		
	FORMATION LIMA.!			10			
1P160007	RADIO COMM -¢ATLANTA	1	4.0	10		100	
	APPROACH CONTROL,			10			
	THIS IS NASA 515			10			
	LEVEL AT ONE ONE			10			
1P160008	THOUSAND WITH INFOR-	1	2.0	10		100	
	NATION LIMA, OVER!			10			
1P160009	MON RADIO COMM -	1	2.5	10	100		
	¢NASA 515, ROGER.			10			
	SQUAWK IDENT.!			10			
1P160010	MON RADIO COMM -	1	4	10	100		
	¢NASA 515, TURN LEFT			10			
	HEADING TWO ONE ZERO			10			
	REDUCE SPEED TO TWO			10			
1P160011	ZERO ZERO, OVER!	1	2	10	100		
1P160012	RADIO COMM -¢515,		5	10		100	
	ROGER. LEFT HEADING			10			
	TWO ONE ZERO, SLOW			10			
	TO TWO ZERO ZERO!			10			
1P160013				10			
1P160014	MON RADIO COMM -	1	4.0	10	100		
	¢NASA 515, REDUCE			10			
	SPEED TO ONE NINER			10			
	ZERO KNOTS, OVER!			10			
1F160015	RADIO COMM - ¢515,	1	2.5	10		100	
	ROGER. ONE IONER			10			
	ZERO KNOTS!			10			
1P160016	MON RADIO COMM -	1	4.0	10	100		
	¢NASA 515, CONTACT			10			
	APPROACH CONTROL ON			10			
	ONE TWO SEVEN POINT			10			
1P160017	TWO FIVE, OVER!	1	1.0	10	100		
1P160018	RADIO COMM-¢515,	1	3.0	10		100	
	ROGER. ONE TWO SEVEN			10			
	POINT TWO FIVE!			10			
1P160019	RADIO COMM -¢ATLANTA	1	3.5	10		100	
	APPROACH CONTROL,			10			
	THIS IS NASA 515			10			
	LEVEL AT ONE ONE			10			
1P160020	THOUSAND, OVER!	1	.75	10		100	
1P160021	MON RADIO COMM -	1	3.5	10	100		
	¢NASA 515, ATLANTA			10			
	APPROACH. ROGER.			10			
	SQUAWK IDENT!			10			
1P160022	MON RADIO COMM -	1	3.0	10	100		
	¢NASA 515, TURN RT			10			
	HEADING TWO SEVEN			10			
	ZERO. REDUCE SPEED			10			
1P160023	TO ONE SEVEN ZERO	1	4.0	10	100		
	KNOTS. DESCEND AND			10			
	MAINTAIN FOUR FIVE			10			
	HUNDRED, OVER!			10			
1P160024	RADIO COMM -¢515,	1	4.0	10		100	
	ROGER. LEFT HEADING			10			

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         TWO SEVEN ZERO. SLOW                                    10
         TO ONE SEVEN ZERO.                                      10
1P160025 MAINTAIN FOUR FIVE    1   2.0                          10      100
         HUNDRED.!                                               10
1P160026 MON RADIO COMM -      1   3.5                          10  100
         ¢NASA 515, TURN LEFT                                    10
         HEADING ONE EIGHT                                       10
         ZERO, OVER!                                             10
1P160027 RADIO COMM -¢515      1   3.0                          10      100
         ROGER. LEFT HEADING                                     10
         ONE EIGHT ZERO.!                                        10
1P160028 MON RADIO COMM -      1   3.21                         10  100
         ¢NASA 515, YOU ARE                                      10
         FOURTEEN MILES FROM                                     10
         THE OUTER MARKER.                                       10
1P160029 TURN LEFT HEADING     1   4.28                         10  100
         ONE TWO ZERO FOR                                        10
         VECTOR TO INTERCEPT                                     10
         FINAL APPROACH                                          10
1P160030 COURSE. YOU ARE       1   4.28                         10  100
         CLEARED FOR AN ILS                                      10
         RUNWAY ZERO EIGHT                                       10
         APPROACH. CONTACT                                       10
1P160031 TOWER AT THE OUTER    1   3.21                         10  100
         MARKER ON ONE ONE                                       10
         NINER POINT FIVE,                                       10
         OVER!                                                   10
1P160032 RADIO COMM- ¢515,     1   4.0                          10      100
         ROGER. LEFT HEADING                                     10
         ONE TWO ZERO. ILS                                       10
         RUNWAY ZERO EIGHT                                       10
1P160033 APPROACH. TOWER AT    1   3.0                          10      100
         OUTER MARKER ON ONE                                     10
         ONE NINER POINT FIVE                                    10
1P160034 MON RADIO COMM-       1   3.5                          10  100
         ¢NASA 515, REDUCE                                       10
         SPEED TO ONE FIVE                                       10
         ZERO KNOTS OVER!                                        10
1P160035 RADIO COMM -¢515,     1   2.5                          10      100
         ROGER. ONE FIVE ZERO                                    10
         KNOTS!                                                  10
1P160036 MON RADIO COMM -      1   3.5                          10  100
         ¢NASA 515. MAINTAIN                                     10
         CURRENT SPEED UNTIL                                     10
         CROSSING STUBBS,OVER                                    10
1P160037 RADIO COMM -          1   1.7                          10      100
         ¢515, ROGER!                                            10
1P160038 RADIO COMM-¢ATLANTA   1   4.0                          10      100
         TOWER, THIS IS NASA                                     10
         515 OVER LAKESIDE                                       10
         INBOUND FOR RUNWAY                                      10
1P160039 ZERO EIGHT, OVER!     1   1.0                          10      100
1P160040 MON RADIO COMM -      1   4.0                          10  100
         ¢NASA 515, ATLANTA                                      10
         TOWER, ROGER. CLEAR                                     10
         TO LAND RUNWAY ZERO                                     10
1P160041 EIGHT. WIND ONE ONE   1   3.0                          10  100
         ZERO DEGREES AT ZERO                                    10
         NINER.!                                                 10
1P160042 CALL OUT-¢ALTIMETER   1   3.5                          10      100
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	BARO SETTING IS TWO NINER POINT EIGHT FOUR!			10 10 10		
1P160043	CALL OUT-¢DESCENT AND APPROACH CHECK-LIST!	1	2	10 10 10		100
1P160044	CALL OUT-¢ANTI-ICE!	1	1	10		100
1P160045	CALL OUT-¢NOT REQD!	1	.8	10		100
1P160046	CALL OUT -¢AIR CON-DITIONING AND PRES-SURIZATION!	1	1.8	10 10 10		100
1P160047	CALL OUT ¢SET!	1	.4	10		100
1P160048	CALL OUT-¢START SWITCHES!	1	.9	10 10		100
1P160049	CALL OUT ¢FLIGHT!	1	.5	10		100
1P160050	CALL OUT-¢INBOARD LANDING LIGHTS!	1	1.1	10 10		100
1P160051	CALL OUT -¢ON!	1	.3	10		100
1P160052	CALL OUT -¢ALTIMETER AND INSTRUMENTS!	1	1.4	10 10		100
1P160053	CALL OUT-¢SET AND CROSSCHECKED!	1	1.3	10 10		100
1P160054	CALL OUT-¢EPR AND IAS BUGS!	1	1.5	10 10		100
1P160055	CALL OUT -¢V-REF IS XXX KNOTS!	1	1.9	10 10		100
1P160056	CALL OUT -¢BUGS SET AND CROSS-CHECKED!	1	1.6	10 10		100
1P160057	CALL OUT -¢CHECKLIST COMPLETED!	1	1.3	10 10		100
1P160058	CALL OUT -¢FLAPS 1!	1	.7	10		100
1P160059	CALL OUT -¢RUNWAY 08 ILS IS ON NAV 1!	1	2.9	10 10		100
1P160060	CALL OUT -¢REG VOR IS ON NAV 2!	1	2	10 10		100
1P160061	CALL OUT -¢FLAPS 5!	1	.7	10		100
1P160062	CALL OUT -¢FLAPS 15!	1	.7	10		100
1P160063	MON RADIO COMM - ¢NASA 515, REDUCE SPEED TO ONE SIX ZERO KNOTS, OVER!	1	4	10 10 10 10	100	
1P160064	RADIO COMM-¢515, ROGER. ONE SIX ZERO KNOTS!	1	2.5	10 10 10		100
1P160065	CALL OUT -¢LAKESIDE ON ADF-1!	1	1.5	10 10		100
1P160066	CALL OUT -¢LAKESIDE ON ADF-2!	1	1.5	10 10		100
1P160067	CALL OUT -¢LOCALIZER ALIVE!	1	1.3	10 10		100
1P160068	CALL OUT-¢I HAVE NAV 2 DATA!	1	1.5	10 10		100
1P160069	CALL OUT -¢ILS ON NAV 1!	1	1.5	10 10		100
1P160070	CALL OUT -¢FLAPS 25!	1	.7	10		100
1P160071	CALL OUT -¢GLIDE SLOPE ALIVE!	1	1	10 10		100
1P160072	CALL OUT -¢CROSSING STUBBS!	1	1	10 10		100
1P160073	CALL OUT -¢FLAPS 40!	1	.7	10		100

1P160074	CALL OUT -¢RUNWAY IN SITE!	1	1	10		100
1P160075	CALL OUT -¢GEAR DOWN AND LANDING CHECK-LIST!	1	1.8	10		100
1P160076	CALL OUT -¢RECALL!	1	.6	10		100
1P160077	CALL OUT -¢CHECKED!	1	.4	10		100
1P160078	CALL OUT -¢SPEED BRAKES!	1	.7	10		100
1P160079	CALL OUT -¢ARMED - GREEN LIGHT!	1	1.3	10		100
1P160080	CALL OUT -¢LANDING GEAR!	1	.7	10		100
1P160081	CALL OUT -¢DOWN, THREE GREEN!	1	1	10		100
1P160082	CALL OUT -¢FLAPS!	1	.4	10		100
1P160083	CALL OUT -¢FORTY, GREEN LIGHT!	1	1.1	10		100
1P160084	CALL OUT -¢CHECKLIST COMPLETE!	1	1.1	10		100
1P160085	CALL OUT -¢FIVE HUN-DRED FEET ABOVE RUN-WAY!	1	1.6	10		100
1P160086	CALL OUT -¢DECISION HEIGHT!	1	.8	10		100
1P160087	MON RADIO COMM - ¢NASA 515,EXIT RUN-WAY NEXT INTERSEC-TION. CONTACT GROUND	1	3.5	10	100	
1P160088	POINT NINER WHEN CLEAR OF RUNWAY, OVER!	1	2.5	10	100	
1P160089	RADIO COMM -¢515, ROGER. POINT NINER WHEN CLEAR!	1	2.5	10		100
1P160090	RADIO COMM -¢ATLANTA GROUND, THIS IS NASA 515. TAXI TO GATE X, OVER!	1	3.5	10		100
1P160091	MON RADIO COMM - ¢NASA 515, ATLANTA GROUND, TAXI TO RAMP VIA NORTHEAST=SOUTH-WEST TAXIWAY, OVER!	1	3.5	10	100	
1P160092		1	1.0	10	100	
1P16EK01	RADIO COMM - ¢APPROACH CONTORL, THIS IS NASA 515. THE PILOT IS INCA-PACITATED. I WILL MAKE A NORMAL ILS APPROACH AND LAND-ING. REQUEST AN AM-BULANCE TO STANDBY AT GATE X,OVER!	1	3	10		100
1P16EK02		1	4	10		100
1P16EK03		1	3	10		100
1P16EK04	MON RADIO COMM- ¢NASA 515, APPROACH CONTROL. UNDERSTAND THAT YOUR PILOT IS	1	3	10	100	
1P16EK05	INCAPACITATED AND REQUEST AMBULANCE.	1	4	10	100	

	WILL USE NORMAL ILS APPROACH AND LAND.			10		
1P16EK06	ADVISE IF YOU RE-QUIRE SPEICAL HAND-LING.!	1	3	10	100	
1P16EK07	PACITATED. I WILL MAKE A NORMAL MLS APPROACH AND LAND-ING. REQUEST AN AM-	1	4	10		100
1P16EK08	INCAPACITATED AND REQUEST AMUBLANCE. WILL USE NORMAL MLS APPROACH AND LAND.	1	4	10		100
1P16FB01	CALL-OUT (RIGHT MAIN GEAR UNSAFE, RECYCLING NOW)	1	3.5	10		100
1P16FB02	CALL-OUT (RIGHT MAIN GEAR STILL UNSAFE)	1	3.2	10		100
1P16FB03	CALL-OUT (GOING AROUND NOW, SET FLAP 15, GEAR UP)	1	3.3	10		100
1P16FB04	CALL-OUT (FLAPS 15)	1	1.0	10		100
1P16FB05	CALL-OUT (BUG + 15)	1	1.4	10		100
1P16FB06	CALL-OUT (GEAR UP, OFF)	1	2	10		100
1P16FB07	RADIO-CALL (ATL TWR NASA 515 ON THE GO WITH GEAR FAILURE)	1	3.5	10		100
1P16FB08	RADIO-COMM (NASA 515 CLIMB STRAIGHT AHEAD TO 3000 AND 170 SAY YOUR INTENTIONS)	1	5.4	10	100	
1P16FB09	RADIO-CALL (ATL NASA 515 ROGER 3000 AND 170 REQUEST ILS RUNWAY 08 WE WILL)	1	5.5	10		
1P16FB10	CALL-OUT (SET FLAPS 5 REPORT 3000 REPORT 170 KNOTS)	1	4.5	10		100
1P16FB11	CALL-OUT (FLAPS 5)	1	.8	10		100
1P16FB12	CALL-OUT (3000)	1	.8	10		100
1P16FB13	RADIO-CALL (ATL TWR NASA 515 LEVEL 3000)	1	2.8	10		100
1P16FB14	RADIO-COMM (NASA 515 ROGER TURN LEFT HDG 045 CNCT APPCON 127. 25 FOR RADAR TO ILS)	1	7.5	10	100	
1P16FB15	CALL-OUT (170 KNOTS)	1	1.0	10		100
1P16FB16	RADIO-CALL (ATL NASA 515 LEFT TO 045 APP CONTROL 127.25)	1	5	10		100
1P16FB17	CALL-OUT (GET GEAR UNSAFE CHECKLIST)	1	1.5	10		100
1P16FB18	CALL-OUT (GEAR LEVER OFF)	1	1	10		100
1P16FB19	CALL-OUT (MANUAL EXTENTIONS NOW)	1	1.2	10		100
1P16FB20	CALL-OUT (DOWN 3 GREEN)	1	1.2	10		100
1P16FB21	TEXTEND(GEAR MANUAL	1	2.8	10		100

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         BEFORE FINAL)                                                  10
1P170001 MON RADIO COMM -      1     4                                 10 100
         ¢NASA 515, REDUCE                                              10
         SPEED TO TWO ZERO                                              10
         ZERO KNOTS, OVER!                                              10
1P170002 RADIO COMM -¢515,     1     3                                 10     100
         ROGER. SLOW TO TWO                                             10
         ZERO ZERO¢                                                     10
1P170003 MON RADIO COMM -      1   3.7                                 10 100
         ¢NASA 515, TURN LEFT                                           10
         HEADING TWO ONE ZERO                                           10
         , OVER!                                                        10
1P170004 RADIO COMM -¢515,     1   2.8                                 10     100
         ROGER. LEFT HEADING                                            10
         TWO ONE ZERO!                                                  10
1P170005 MON RADIO COMM -      1   3.5                                 10 100
         ¢NASA 515, TURN RT                                             10
         HEADING TWO SEVEN                                              10
         ZERO, REDUCE SPEED                                             10
1P170006 TO ONE EIGHT ZERO.    1   3.5                                 10 100
         DESCEND AND MAINTAIN                                           10
         SIX THOUSAND, OVER!                                            10
1P170007 RADIO COMM - ¢515,    1   4.0                                 10     100
         ROGER. RIGHT HEADING                                           10
         TWO SEVEN ZERO, SLOW                                           10
         TO ONE EIGHT ZERO,                                             10
1P170008 MAINTAIN SIX THOU-    1   1.5                                 10     100
         SAND!                                                          10
1P200009 CALL OUT -¢OFF!       1   0.5                                 10     100
1P170009 MON RADIO COMM -      1   3.5                                 10 100
         ¢NASA 515, TURN LEFT                                           10
         HEADING ONE EIGHT                                              10
         ZERO, DESCEND AND                                              10
1P170010 MAINTAIN THREE SIX    1   1.5                                 10 100
         HUNDRED, OVER!                                                 10
1P170011 RADIO COMM -¢515,     1   3.5                                 10     100
         ROGER. LEFT HEADING                                            10
         ONE EIGHT ZERO,                                                10
         MAINTAIN THREE SIX                                             10
1P170012 HUNDRED!              1    .5                                 10     100
1P170013 MON RADIO COMM -      1   3.5                                 10     100
         ¢NASA 515, REDUCE                                              10
         SPEED TO ONE SIX                                               10
         ZERO KNOTS, OVER!                                              10
1P170014 RADIO COMM -¢515,     1   3.0                                 10     100
         ROGER. SLOW TO ONE                                             10
         SIX ZERO!                                                      10
1P170015 MON RADIO COMM -      1   3.0                                 10 100
         ¢NASA 515, YOU ARE                                             10
         SIX MILES FROM THE                                             10
         APPROACH GATE. YOU                                             10
1P170016 ARE CLEARED FOR AN    1   4.0                                 10 100
         MLS RUNWAY ZERO                                                10
         EIGHT APPROACH. CON-                                           10
         TACT ATLANTA TOWER                                             10
1P170017 AFTER CROSSING GATE   1   3.0                                 10 100
         AT ONE NINER POINT                                             10
         FIVE, OVER!                                                    10
1P170018 RADIO COMM -¢515,     1   4.0                                 10     100
         ROGER. MSL RUNWAY                                              10
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	ZERO EIGHT APPROACH, TOWER AFTER GATE ON			10		
1P170019	ONE NINER POINT FIVE	1	1.0	10		100
1P170020	MON RADIO COMM - ¢NASA 515, MAINTAIN CURRENT SPEED UNTIL CROSSING APPROACH	1	3.5	10	100	
1P170021	GATE, OVER!	1	.75	10	100	
1P170022	RADIO COMM -¢ATLANTA TOWER, THIS IS NASA 515, OVER APPROACH GATE FOR RUNWAY	1	4.0	10		100
1P170023	ZERO EIGHT, OVER!	1	1.0	10		100
1P170024	MON RADIO COMM - ¢NASA 515, ATLANTA TOWER, ROGER. CLEARED TO LAND RUNWAY	1	3.5	10	100	
1P170025	ZERO EIGHT. WIND ONE ONE ZERO AT ZERO NINER.!	1	3.5	10	100	
1P170026	CALL OUT -¢RUNWAY 08 MSL ON NAV 1 AND NAV 2!	1	3	10		100
1P180001	MON RADIO COMM - ¢NASA 515, CONTACT ATLANTA TOWER ON ONE ONE NINER POINT FIVE	1	4	10	100	
1P180002	, OVER.!	1	.5	10	100	
1P180003	RADIO COMM - ¢515, ROGER. ONE ONE NINER POINT FIVE.!	1	2.7	10		100
1P180004	MON RADIO COMM - ¢NASA 515, CONTACT TOWER AT THE OUTER MARKER ON ONE ONE	1	4	10	100	
1P180005	NINER POINT FIVE, OVER.!	1	1.5	10	100	
1P180006	RADIO COMM -¢515, ROGER, TOWER AT OUTER MARKER ON ONE ONE NINER POINT FIVE	1	4	10		100
1P200001	INTPHN COMM -¢ADVISE WHEN CHOCKS IN PLACE!	1	1.8	10		100
1P200002	MON INTPHN COMM - ¢ROGER!	1	0.6	10		100
1P200003	MON INTPHN COMM - ¢CHOCKS IN PLACE!	1	1.1	10		100
1P200004	INTPHN COMM -¢ROGER!	1	0.6	10		100
1P200005	CALL OUT-¢SHUTDOWN CHECKLIST!	1	1.2	10		100
1P200006	CALL OUT -¢FUEL!	1	0.7	10		100
1P200007	CALL -¢PUMPS OFF!	1	0.8	10		100
1P200008	CALL OUT -¢GALLEY POWER!	1	0.9	10		100
1P200010	CALL OUT- ¢ELECTRICAL!	1	1	10		100
1P200011	CALL OUT -¢ON!	1	0.7	10		100
1P200012	CALL OUT -¢EMERGENCY	1	1.1	10		100

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          EXIT LIGHTS!                                                  10
1P200013  CALL OUT -¢SEAT BELT  1   1.2                               10      100
          LIGHT!                                                        10
1P200014  CALL OUT -¢WINDOW     1     1                               10      100
          HEAT!                                                         10
1P200015  CALL OUT -¢PITOT      1     1                               10      100
          HEAT!                                                         10
1P200016  CALL OUT -¢ANTI-ICE!  1   1.2                               10      100
1P200017  CALL OUT -¢SYSTEM B   1   1.5                               10      100
          PUMPS!                                                        10
1P200018  CALL OUT -¢AIR COND   1   2.1                               10      100
          AND PRESSURIZATION!                                           10
1P200019  CALL OUT -¢ONE PACK,  1     3                               10      100
          GROUND/BLEEDS ON,                                             10
          GROUND!                                                       10
1P200020  CALL OUT-¢ANTI-COL-   1   1.2                               10      100
          LISSION LT!                                                   10
1P200021  CALL OUT-¢START       1   1.2                               10      100
          SWITCHES!                                                     10
1P200022  ALL OUT-¢AUTO         1     1                               10      100
          BRAKES!                                                       10
1P200023  CALL OUT-¢RADAR  AND  1   1.4                               10      100
          TRANSPONDER!                                                  10
1P200024  CALL OUT-¢SPEED-      1     1                               10      100
          BRAKE!                                                        10
1P200025  CALL OUT-¢FLAPS!      1   0.8                               10      100
1P200026  CALL OUT-¢PARKING     1     1                               10      100
          BRAKES!                                                       10
1P200027  CALL OUT- ¢START      1     1                               10      100
          LEVERS!                                                       10
1P200029  CALL OUT -¢UP!        1   0.6                               10      100
1P200030  CALL OUT- ¢DOWN       1   1.2                               10      100
          DETENT!                                                       10
1P200031  CALL OUT -¢RELEASED   1     1                               10      100
1P200032  CALL OUT- ¢CUTOFF!    1   0.9                               10      100
1P200033  CALL OUT -¢OXYGEN     1   1.5                               10      100
          REGULATOR!                                                    10
1P200034  CALL OUT -¢OFF,100!   1   2.5                               10      100
1P200035  CALL OUT -¢CHECKLIST  1   2.5                               10      100
          COMPLETE DOWN TO                                              10
          SECURE!                                                       10
1P200036  CALL OUT - ¢APU!      1     1                               10      100
1P200037  CALL OUT -¢BATTERY!   1     1                               10      100
1P200038  CALL OUT -¢SHUTDOWN   1   1.5                               10      100
          CHECKLIST COMPLETE!                                           10
1P200039  CALL OUT -¢CONTINUE   1   1.2                               10      100
          CHECKLIST!                                                    10
1P200040  MON INTPHN COMM -     1   1.5                               10  100
          ¢TESTING,TESTING,                                             10
          OVER!                                                         10
1P200041  INTPHN COMM -         1     3                               10      100
          ¢ROGER, HEAR YOU                                              10
          LOUD AND CLEAR. ARE                                           10
          CHOCKS SET, OVER!                                             10
1P200042  MON INTPHN COMM -     1    .8                               10  100
          ¢CHOCKS IN PLACE !                                            10
1Q    01  MON VHF-1L FREQ IND  1   .77      100                       10
                               2  4.48       90                       10
                               3  4.97       90                       10
                               4  4.97       90                       10
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1Q	02	SET VHF-1L FREQ-	1	2.90	10		100	10		
		WHOLE NO.	2	3.00	10	100		10		
1Q	03	SET VHF-1L FREQ-	1	1.58	10		100	10		
		FRACTIONS	2	1.97	10	100		10		
1Q	04	ADJ VHF-1L VOLUME	1	1.58	10		100	10		
			2	2.15	10		100	10		
			3	1.58	10	100		10		
			4	2.15	10	100		10		
1Q	05	SET VHF-1L COMM TRR	1	1.45	20	100		10		
		SW TO LEFT	2	1.45	20			10		
1Q	06	SET VHF-1L COMM TFR	1	1.45	20		100	10		
		SW TO RIGHT	2	1.45	20	100		10		
1Q	07	MON VHF-1R FREQ IND	1	.77	100			10		
			2	3.64	90			10		
			3	4.51	90			10		
			4	5.94	90			10		
1Q	08	SET VHF-1R FREQ-	1	2.05	10		100	10		A
		WHOLE NUMBERS	2	2.93	10		100	10		
			3	2.05	10	100		10		AC
			4	2.97	10	100		10		AC
1Q	09	SET VHF-1R FREQ-	1	1.58	10		100	10		
		FRACTIONS	2	1.97	10	100		10		AC
1Q	10	ADJ VHF-1R VOLUME	1	1.58	0		100	10		
			2	2.18	50		100	10		
			3	1.58	0	100		10		
			4	2.18	50	100		10		
1Q	11	SET COMM 1 MIC SEL	1	2.71	100		100	10		A
		SW TO VHF-1	2	2.80	100	100		10		AC
1Q	12	SET COMM 1 VHF-1	1	2.21	100		100	10		A
		COMM RECVR SW TO ON	2	2.34	100	100		10		AC
1Q	13	SET COMM 1 VHF-1	1	2.21	100		100	10		
		COMM RECVR SW TO OFF	2	2.34	100	100		10		
1Q	14	ACT COMM 1 PTT SW	1	1.40	20		100	10		
			2	1.39	20	100		10		
			3	5.00	5	100		10		
			4	12.00	3	100		10		
1Q	15	COMM VIA VHF-1	1	5				10		
			2	12				10		
			3	1.7				10		
			4	7				10		
1Q	16	MON VHF-1 COMM AUDIO	1	12				10		
			2	7				10		
			3	6				10		
			4	3				10		
1Q	17	SET COMM 2 VHF-1	1	2.29	100		100	10		A
		COMM RECVR SW TO ON	2	2.27	100	100		10		AC
1Q	18	SET COMM 2 VHF-1	1	2.29	100		100	10		
		COMM RECVR SW TO OFF	2	2.27	100	100		10		
1Q	19	SET COMM 2 MIC SEL	1	2.79	100		100	10		A
		SW TO VHF-1	2	2.71	100	100		10		AC
1Q	20	SET COMM 3 VHF-1	1	2.46	100		100	10		A
		COMM RECVR SW TO ON	2	2.45	100	100		10		AC
1Q	21	SET COMM 3 VHF-1	1	2.46	100		100	10		
		COMM RECVR SW TO OFF	2	2.45	100	100		10		
1Q	22	SET COMM 3 MIC SEL	1	2.97	100		100	10		A
		SW TO VHF-1						10		
1Q	23	ACT COMM 1 PUSH-TO-	1	1.7		100		10		
		TALK SW	2	3.5		100		10		
1Q	24	ACTUATE PUSH-TO-TALK	1	7			100	10		
		SW ON CONTROL HAND-	2	1.7			100	10		

	GRIP	3	3.5			100		10	
		4	3			100		10	
1Q	28 COMM VIA VHF-1	1	3.5					10	
		2	3					10	
1Q	30 MON VHF-1 COMM AUDIO	1	5					10	
		2	4					10	
		3	24					10	
1R	01 MON VHF-2L FREQ IND	1	.76	100				10	
		2	4.55	90				10	
		3	4.51	90				10	
1R	02 SET VHF-2L FREQ	1	2.97	10	100			10	
	WHOLE NUMBERS	2	2.93	10	100			10	
1R	03 SET VHF-2L FREQ	1	1.58	10		100		10	
	FRACTIONS	2	1.58	10	100			10	
		3	1.97	10	100			10	
1R	04 ADJ VHF-2L VOLUME	1	1.58			100		10	
		2	2.97	50		100		10	
		3	1.58		100			10	
		4	2.97	50	100			10	
1R	05 SET VHF-2 COMM TFR	1	1.47	20		100		10	
	SW TO LEFT	2	1.47	20	100			10	
1R	06 SET VHF-2 COMM TFR	1	1.47	20		100		10	
	SW TO RIGHT	2	1.47	20	100			10	
		3	1.97	20	100			10	
1R	07 MON VHF-2R FREQ IND	1	.77	100				10	
		2	4.58	80				10	
		3	4.48	80				10	
1R	08 SET VHF-2R FREQ-	1	2.03	10		100		10	
	WHOLE NO.S	2	3.00	10		100		10	
		3	2.03	10	100			10	
		4	2.90	10	100			10	
1R	09 SET VHF-2R FREQ-	1	1.58	10		100		10	
	FRACTIONS	2	1.58	10	100			10	
		3	1.97	10	100			10	
1R	10 ADJ VHF-2R VOLUME	1	1.58			100		10	
		2	3.00	50		100		10	
		3	1.58		100			10	
		4	3.00	50	100			10	
1R	11 SET COMM 2 MIC SEL	1	2.79	100		100		10	A
	SW TO VHF-2	2	2.71	100	100			10	AC
1R	12 SET COMM 2 VHF-2	1	1.43	100		100		10	A
	COMM RECVR SW TO ON	2	1.43	100	100			10	AC
1R	13 SET COMM 2 VHF-2	1	1.43	100		100		10	
	COMM RECVR SW TO OFF	2	1.43	100	100			10	
1R	14 ACT COMM 2 PTT SW	1	1.41	20				10	
		2	1.41	20				10	
		3	5.50	5				10	
		4	3.50	10				10	
1R	15 COMM VIA VHF-2	1	3.7					10	
		2	5.5					10	
		3	3.5					10	
		4	4					10	
1R	16 MON VHF-2 COMM AUDIO	1	5.5					10	
		2	3.5					10	
		3	3.2					10	
		4	5					10	
1R	17 SET COMM 1 VHF-2	1	1.42	100		100		10	A
	COMM RECVR SW TO ON	2	1.42	100	100			10	AC
1R	18 SET COMM 1 VHF-2	1	1.42	100		100		10	
	COMM RECVR SW TO OFF	2	1.42	100	100			10	

1R	19	SET COMM 1 MIC SEL SW TO VHF-2	1	2.71	100		100		10	A
			2	2.80	100	100			10	AC
1R	20	SET COMM 3 VHF-2 COMM RECVR SW TO ON	1	1.43	100		100		10	A
			2	1.43	100	100			10	
1R	21	SET COMM 3 VHF-2 COMM RECVR SW TO OFF	1	1.43	100		100		10	
			2	1.43	100	100			10	
1R	22	SET COMM 3 MIC SEL SW TO VHF-2	1	2.97	100		100		10	A
									10	
1R	23	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	3.7			100		10	
			2	4.8			100		10	
			3	2.5			100		10	
			4	1.5			100		10	
1R	24	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	1.7			100		10	
			2	2.3			100		10	
			3	3.1			100		10	
			4	4			100		10	
1R	25	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	6.8			100		10	
			2	4.4			100		10	
			3	3			100		10	
			4	6			100		10	
1R	26	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	4.2			100		10	
			2	5			100		10	
			3	2.7			100		10	
			4	7.5			100		10	
1R	27	ACT COMM 2 PUSH-TO-TALK SW	1	4.6		100			10	
			2	1.7		100			10	
			3	4.2		100			10	
			4	4		100			10	
1R	28	ACT COMM 2 PUSH-TO-TALK SW	1	4.25		100			10	
			2	5		100			10	
1R	30	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	4.5			100		10	
			2	3.3			100		10	
			3	4.23			100		10	
			4	10			100		10	
1R	32	MON VHF-2 COMM AUDIO	1	2.5						
			2	6						
			3	6.8						
			4	7						
1R	33	MON VHF-2 COMM AUDIO	1	9						
			2	6.2						
			3	1.7						
			4	3						
1R	34	MON VHF-2 COMM AUDIO	1	9.5						
			2	4.3						
			3	7.5						
			4	4.5						
1R	35	MON VHF-2 COMM AUDIO	1	8						
			2	10						
			3	30						
			4	16.						1R
1R	36	COMM VIA VHF-2	1	4.8						
			2	2.5						
			3	1.5						
			4	1.7						
1R	37	COMM VIA VHF-2	1	2.3						
			2	3.1						
			3	4.4						
			4	3						
1R	38	COMM VIA VHF-2	1	6						
			2	4.2						

			3	5						
			4	2.7						
1R	39	COMM VIA VHF-2	1	7.5						
			2	3.1						
			3	4.5						
			4	3.3						
1R	40	COMM VIA VHF-2	1	4						
			2	4.25						
			3	10					5	
			4	5.5					5	
1R	41	COMM VIA VHF-2R	1	6.8					10	
			2	11.					10	
1R	42	ACT PUSH-TO-TALK SW ON CONTROL HANDGRIP	1	11.			100		10	
									10	
1S	01	MON VHF-3L FREQ IND	1	.77	100				10	
			2	5.00	90				10	
			3	5.06	90				10	
1S	02	SET VHF-3L FREQ-WHOLE NUMBERS	1	3.03	10		100		10	
			2	3.09	10	100			10	
1S	03	SET VHF-3L FREQ-FRACTIONS	1	1.97	10		100		10	
			2	1.97	10	100			10	
1S	04	ADJ VHF-3L VOLUME	1	1.97	10		100		10	
			2	3.03	50		100		10	
			3	1.97	0	100			10	
			4	3.03	50	100			10	
1S	05	SET VHF-3 COMM TFR SW TO LEFT	1	1.45	50		100		10	
			2	1.45	50	100			10	AC
1S	06	SET VHF-3 COMM TFR SW TO RIGHT	1	1.45	50		100		10	
			2	1.45	50	100			10	
1S	07	MON VHF-3R FREQ IND	1	.77	100				10	
			2	5.01	90				10	
			3	5.05	90				10	
1S	08	SET VHF-3R FREQ WHOLE NO.S	1	2.05	10		100		10	
			2	3.04	10		100		10	
			3	2.05	10	100			10	
			4	3.08	10	100			10	
1S	09	SET VHF-3R FREQ-FRACTIONS	1	1.97	10		100		10	
			2	1.97	10	100			10	
		FRACTIONS	2	1.97		100			10	AC
1S	10	ADJ VHF-3R VOLUME	1	2.05	50		100		10	
			2	3.04	50		100		10	
			3	2.05	50	100			10	
			4	3.08	50	100			10	
1S	11	SET COMM 3 MIC SEL SW TO VHF-1	1	2.97	100		100		10	A
			2	2.93	100	100			10	AC
1S	12	ACT COMM 3 PUSH-TO-TALK SW	1	1.41	50		100		10	A
			2	1.42	50	100			10	AC
1T	01	SET LOUDSPEAKER TO ON	1	2.39	100	100			10	CP4
			2	2.39	100		100		10	P
1T	02	SET LOUDSPEAKER TO OFF	1	2.39	100	100			10	
			2	2.39	100		100		10	
1T	03	ADJUST LOUDSPEAKER VOLUME	1	2.11	100	100			10	
			2	2.11	100		100		10	P
			3	3.04	100	100			10	
			4	3.04	100		100		10	P
2H	01	PRESS ATT CWS MODE SW	1	1.35	100		100		10	A
			2	1.44	100		100		10	A
			3	1.44	100	100			10	
2H	02	MON ATT CWS MODE LT GREEN - ATT CWS	1	1.05	100				10	A
									10	

		ENGAGED							10	
2H	03	MON ATT CWS MODE	1	1.85	100				10	
		LT DARK - ATT CWS							10	
		DISENGAGED							10	
2H	04	PRESS VEL CWS MODE	1	2.09	100		100		10	A
		SW	2	1.35	100		100		10	A
2H	05	MON VEL CWS MODE LT	1	1.34	100				10	A
		GREEN - VEL CWS ENG							10	
2H	06	MON VEL CWS MODE LT	1	1.34	100				10	
		DARK - VEL CWS DIS-							10	
		ENGAGED							10	
2H	07	PRESS AUTO MODE SW	1	1.42	100		100		10	A
2H	08	MON AUTO MODE LT	1	1.34	100				10	
		GREEN - AUTO MODE							10	
		ENGAGED							10	
2H	09	MON AUTO MODE LT	1	1.34	100				10	
		DARK - AUTO MODE							10	
		DISENGAGED							10	
2H	10	PRESS LAND MODE SW	1	2.13	100		100		10	A
			2	2.13	100	100			10	
2H	11	MON LAND MODE LT	1	1.05	100				10	
		GREEN - LAND MODE							10	
		ENGAGED							10	
2H	12	MON LAND MODE LT	1	1.05	100				10	
		ORANGE - LAND MODE							10	
		ARMED							10	
2H	13	MON LAND MODE LT	1	1.05	100				10	
		DARK - LAND MODE							10	
		DISENGAGED							10	
2H	14	PRESS TKA SEL MODE	1	1.41	100		100		10	P
		SW							10	
2H	15	MON TKA SEL MODE LT	1	.77	100				10	AP
		GREEN - TKA SEL MODE							10	
		ENGAGED							10	
2H	16	MON TKA SEL MODE LT	1	.77	100				10	
		ORANGE - TKA SEL							10	
		MODE ARMED							10	
2H	17	MON TKA SEL MODE LT	1	.77	100				10	
		BLUE - TKA SEL MODE							10	
		PRESELECTED							10	
2H	18	MON TKA SEL MODE LT	1	.77	100				10	
		DARK - TKA SEL MODE							10	
		DISENGAGED							10	
2H	19	ROTATE TKA SEL KNOB	1	2.50					10	P
2H	20	READ TKA SEL VALUE	1	1.11	100				10	A
		ON DIGITAL INDIC							10	
2H	21	PRESS FPA SEL MODE	1	1.40	100		100		10	AP
		SW							10	
2H	22	MONITOR FPA SEL MODE	1	.77	100				10	AP
		LT GREEN - FPA SEL							10	
		MODE ENGAGED							10	
2H	23	MONITOR FPA SEL MODE	1	.77	100				10	
		LT ORANGE - FPA SEL							10	
		MODE ARMED							10	
2H	24	MONITOR FPA SEL MODE	1	.77	100				10	
		LT BLUE - FPA SEL							10	
		MODE PRESELECTED							10	
2H	25	MONITOR FPA SEL MODE	1	.77	100				10	
		LT DARK - FPA SEL							10	
		MODE DISENGAGED							10	

2H	26	ROTATE FPA SEL KNOB	1	2.45	100	100	10	AP
2H	27	READ FPA SEL VALUE ON DIGITAL INDIC	1	1.08	100		10	AP
2H	28	PRESS ALT ENG MODE S SW	1	1.42	100	100	10	AP
2H	29	MONITOR ALT ENG MODE LT GREEN - ALT ENG MODE ENGAGED	1	.78	100		10	AP
2H	30	MON ALT ENG MODE LT ORANGE - ALT ENG MODE ARMED	1	.78	100		10	
2H	31	MON ALT ENG MODE LT BLUE - ALT ENG MODE PRESELECTED	1	.78	100		10	
2H	32	MON ALT ENG MODE LT DARK - ALT ENG MODE DISENGAGED	1	.78	100		10	
2H	33	ROTATE ALT ENG KNOB	1	2.47	100	100	10	AP
2H	34	READ ALT ENG VALUE ON DIGITAL INDIC	1	1.06	100		10	A
2H	35	PRESS HOR PATH MODE SW	1	1.37	100	100	10	A
			2	2.15	100	100	10	A
			3	1.72	100	100	10	A
2H	36	MON HOR PATH MODE LT GREEN - HOR PATH MODE ENGAGED	1	.78	100		10	
2H	37	MON HOR PATH MODE LT ORANGE - HOR PATH MODE ARMED	1	.78	100		10	
2H	38	MON HOR PATH MODE LT DARK - HOR PATH MODE DISENGAGED	1	.78	100		10	
2H	39	PRESS VERT PATH MODE SW	1	1.36	100	100	10	A
2H	40	MON VERT PATH MODE L GREEN - VERT PATH MODE ENGAGED	1	.78	100		10	
2H	41	MON VERT PATH MODE L ORANGE - VERT PATH MODE ARMED	1	.78	100		10	
2H	42	MON VERT PATH MODE LT DARK - VERT PATH MODE DISENGAGED	1	.78	100		10	
2H	43	PRESS CAS ENG MODE SW					10	
2H	44	MON CAS ENG MODE LT GREEN - CAS MODE ENGAGED	1	.78	100		10	A
2H	45	MON CAS ENG MODE LT BLUE - CAS ENG MODE PRESELECTED	1	.78	100		10	
2H	46	MON CAS ENG MODE LT DARK - CAS ENG MODE DISENGAGED	1	.78	100		10	
2H	47	ROTATE CAS ENF KNOB	1	2.45	100		10	A
2H	48	READ CAS ENG VALUE ON DIGITAL INDIC	1	1.04	100		10	A
2H	49	PRESS TIME PATH MODE SW	1	1.35	100	100	10	A
2H	50	MON TIME PATH MODE	1	.78	100		10	

		LT GREEN - TIME						10	
		PATH MODE ENGAGED						10	
2H	51	MON TIME PATH MODE	1	.78	100			10	
		SW DARK - TIME PATH						10	
		MODE DISENGAGED						10	
2H	52	ACT LEFT AGCS LIGHTS	1	2		100		10	
		TEST SW						10	
2H	53	MON AGCS PANEL LTS	1	2	100			10	
		TEST						10	
2H	54	ACT RIGHT AGCS	1	2		100		10	
		LIGHTS TEST SW						10	
2J	01	MON ROLL ATT INDIC	1	2.02	100			10	P
			2	10	5			5	
			3	30	5			5	
			4	180	5			5	
2J	02	MON PITCH ATTITUDE	1	1.12	100			10	P
		INDIC	2	10	10			10	
			3	30	10			10	
			4	180	10			10	
2J	03	MONITOR ALTITUDE	1	.78	100			10	P
		DIGITAL CALLOUT						10	
2J	04	MON FLT PATH ACCEL	1	2.19	100			10	P
		INDIC	2	10	5			5	
			3	30	5			5	
			4	60	5			5	
2J	05	MON FLT PATH ANGLE	1	2.19	100			10	
			2	10	10			10	
		INDIC	3	30	10			10	
			4	180	10			10	
2J	06	MON PITCH FLT DIREC	1	2.19	100			10	
2J	07	MON ROLL FLT DIREC	1	2.19	100			10	
2J	08	MON ACCEL COMMAND	1	2.19	100			10	
2J	09	MON FLT PATH ANGLE	1	2.19	100			10	
		COMMAND						10	
2J	10	MON FLT PATH COMMAND	1	2.19	100			10	
		TO NEXT WPT						10	
2J	11	MON FLT PATH COMMAND	1	2.19	100			10	
		TO DESTINATION IN						10	
		30 SECONDS						10	
2J	12	MON WAYPOINT IDENTS	1	2.19	100			10	
2J	13	MON ILS BOX	1	2.19	100			10	
		INDIC	2	10	5			5	
			3	30	5			5	
			4	60	5			5	
2J	14	MON ILS CROSS	1	2.19	100			10	
		INDIC	2	10	5			25	
			3	30	5			25	
			4	60	5			25	
2J	15	MON TV VIDEO	1	2.19	100			10	
			2	30	10			10	
2J	16	ACT EADI AUTO SW	1	2.13	100	100		10	AP
			2	2.35	100	100		10	P
2J	17	SEL MAN EADI PITCH						10	
		REF MODE/MON SW LT						10	
		ON						10	
2J	18	ROTATE PITCH REF	1	2.05	100	100		10	AP
		KNOB TO SELECT						10	
		PITCH						10	
2J	19	MON PITCH REF INDIC	1	1.12	100			10	AP
			2	10	5			5	

			3	30	5			5	
			4	180	5			5	
2J	20	ROTATE DH KNOB TO SELECT DH VALUE	1	1.11	10		100	10	AP
			2	2.44	10		100	10	
2J	21	MON DH INDIC	1	1.11	90			10	
			2	2.44	90			10	
2J	22	MON FLASHING CENTER DOT ON EADI	1	2.27	100			10	
			2	30	10			10	
2J	23	ACTUATE DH TEST SW	1	2.27	100		100	10	
2J	24	MON 100 FT INDIC ON EADI	1	2.27	100			10	
								10	
2J	25	SELECT LAND MODE	1	2.67	100		100	10	AP
			2	2.67	100	100		10	
2J	26	SELECT CRUISE MODE	1	2.67	100		100	10	
			2	1.35	100		100	10	
2J	27	SELECT TEST MODE	1	2.67	100		100	10	
2J	28	MON EADI TEST PAT	1	2.67	100			10	
2J	29	SELECT SPD ERR OPTIO	1	1.35	100		100	10	
			2	2.15	100		100	10	
2J	30	MON SPD ERR BAR						10	
2J	31	SEL ILS OPTION	1	1.35	100		100	10	
			2	2.15	100		100	10	
			3	2.15	100	100		10	
2J	32	SEL TV OPTION	1	2.15	100		100	10	AP
			2	1.35	100		100	10	
2J	33	SEL FPT DIR OPTION	1	2.15	100		100	10	
			2	1.35	100		100	10	
2J	34	SELECT V-NAV OPTION	1	1.32	100		100	10	AP
			2	2.15	100		100	10	
2J	35	SELECT RUNWAY OPTION	1	1.36	100		100	10	AP
			2	2.15	100		100	10	
2J	36	ADJ EADI BRIGHTNESS	1	2	100		100	10	
2J	37	ADJ EADI CONTRAST	1	2	100		100	10	
2J	38	MONITOR LOCALIZER INDICATOR	1	5	20			20	
			2	10	10			10	
			3	30	20			20	
			4	60	20			20	
2J	39	MON GLIDE SLOPE ATT INDIC	1	5	20			20	
			2	10	20			20	
			3	30	20			20	
			4	60	20			20	
		DOWN TO 30KTS							
2J	40	MON EADI RNWY	1	10	10			5	
			2	30	10			5	
			3	60	10			5	
			4	180	10			5	
2J	41	MON EADI DRIFT INDIC	1	10	10			10	
			2	30	10			10	
			3	60	10			10	
			4	180	10			10	
2K	01	SEL TRACK UP OPTION	1	2.64	100		100	10	AP
			2	1.97	100		100	10	
			3	2.00	100	100		10	AC
			4	2.67	100	100		10	AC
2K	02	SEL NORTH UP OPTION	1	2.64	100		100	10	
			2	1.97	100		100	10	
			3	2.00	100	100		10	
			4	2.67	100	100		10	
2K	03	SEL TEST OPTION	1	2.64	100		100	10	
			2	1.97	100		100	10	

			3	2.00	100	100		10	
			4	2.67	100	100		10	
2K	04 MON MFD TEST PATT		1	3	100			10	
2K	05 SEL 1 NM MAP SCALE		1	2.65	100		100	10	AP
			2	1.92	100		100	10	AP
			3	1.96	100	100		10	AC
			4	2.68	100	100		10	AC
2K	06 SEL 2 NM MAP SCALE		1	2.65	100		100	10	
			2	1.92	100		100	10	
			3	1.96	100	100		10	
			4	2.68	100	100		10	
2K	07 SEL 4 NM MAP SCALE		1	2.65	100		100	10	
			2	1.92	100		100	10	
			3	1.96	100	100		10	
			4	2.68	100	100		10	
2K	08 SEL 8 NM MAP SCALE		1	2.65	100		100	10	
			2	1.92	100		100	10	
			3	1.96	100	100		10	
			4	2.68	100	100		10	
2K	09 SEL 16 NM MAP SCALE		1	2.65	100		100	10	
			2	1.92	100		100	10	
			3	1.96	100	100		10	
			4	2.68	100	100		10	
2K	10 SEL 32 NM MAP SCALE		1	2.68	100		100	10	AP
			2	1.92	100		100	10	
			3	1.96	100	100		10	
			4	2.68	100	100		10	
2K	11 MON MAP SCALE CALLOU		1	.83	100			10	AP
2K	12 MON 1 NM MAP VIDEO		1	2.27	100			10	AP
2K	13 MON 2 NM MAP VIDEO		1	2.27	100			10	
2K	14 MON MAP VIDEO		1	2.27	100			10	
			2	10	10			10	
			3	30	10			10	
			4	180	10			10	
2K	15 MON MAP VIDEO		1	2.27	100			10	
			2	60	5			5	
2K	16 MON MAP VIDEO		1	2.27	100			10	
2K	17 MON MAP VIDEO		1	2.27	100			10	
			2	17	100			10	
2K	18 SEL NAV AIDES OPTION		1	2.07	100		100	10	AP
			2	2.13	100	100		10	AC
			3	1.38	100		100	10	
			4	1.38	100	100		10	
2K	19 SEL TERRAINE OPTION		1	1.38	100	100		10	AC
			2	2.07	100		100	10	
			3	1.38	100		100	10	
			4	2.13	100	100		10	
2K	20 SEL AIRPORTS OPTION		1	1.37	100	100		10	
			2	2.07	100		100	10	
			3	1.38	100		100	10	
			4	2.13	100	100		10	
2K	21 SEL WPT ALT OPTION		1	1.46	100		100	10	AP
			2	2.07	100		100	10	
			3	1.38	100	100		10	
			4	2.13	100	100		10	
2K	22 SEL GRP OPTION		1	1.37	100		100	10	AP
			2	1.33	100	100		10	AC
			3	2.07	100		100	10	
			4	2.13	100	100		10	
2K	23 SEL T NAV OPTION		1	2.13	100	100		10	AC

			2	1.38	100	100		10
			3	2.07	100		100	10
			4	2.13	100	100		10
2K	24	SEL ALT RANGE OPTION	1	1.38	100	100		10
			2	2.07	100	100		10
			3	2.13	100		100	10
			4	1.38	100		100	10
2K	25	SEL TREND VECT OPTION	1	1.38	100	100		10
			2	2.07	100	100		10
			3	2.13	100		100	10
			4	1.38	100		100	10
2K	26	MON NV AIDES SYMBOLS						10
2K	27	MON TERRAINE SYMBOLS						10
2K	28	MON AIRPORT SYMBOLS						10
2K	29	MON WAYPOINT ALT WITH NAV AIDES SYM						10
2K	30	MON GEO REF PT SYM						10
2K	31	MON TIME BOX AND FUTURE PTS SYMBOLS	1	.001	100			10
								10
2K	32	MON ALT/RNG SYMBOLS	1	2	100			10
2K	33	MON CURVED TREND VECTOR SYMBOLS	1	10	10			10
			2	30	10			10
			3	180	10			10
			4	60	5			5
2K	34	DESELECT NAV AIDES OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
			3	1.38	100	100		10
			4	2.13	100	100		10
2K	35	DESELECT TERRAIN OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
			3	1.38	100	100		10
			4	2.13	100	100		10
2K	36	DESELECT AIRPORTS OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
			3	1.38	100	100		10
			4	2.13	100	100		10
2K	37	DESELECT WPT ALT OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
			3	1.38	100	100		10
			4	2.13	100	100		10
2K	38	DESELECT GRP OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
			3	1.38	100	100		10
			4	2.13	100	100		10
2K	39	DESELECT T NAV OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
2K	40	DESELECT ALT RANGE OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
			3	1.38	100	100		10
			4	2.13	100	100		10
2K	41	DESELECT TREND VEC OPTION	1	1.38	100		100	10
			2	2.07	100		100	10
			3	1.38	100	100		10
			4	2.13	100	100		10
2K	42	MON HOLDING PATTERN SYMBOL						10
								10
2K	43	MON ADIZ BDRY SYM						10
2K	44	MON FIR BDRY SYMBOL						10
2K	45	MON OFFSET FLT PATH SYMBOLS						10
								10

2K	46	MON STRAIGHT TREND VECTOR SYMBOL	1	10	10		10	
			2	30	10		10	
			3	180	10		10	
			4	60	5		5	
2K	47	MON TRACK ANGLE SYM	1	10	10		10	
2K	48	MON AGCS MODE INDIC	1	.83	100		10	AP
2K	49	MON GROUND SPEED INC	1	.79	100		10	AP
2K	50	MON NAV MODE INDIC	1	.79	100		10	
2K	51	MON WIND DIREC/VEL INDIC	1	.79	100		10	
							10	
2K	52	MON FTL PATH SYMBOL	1	10	10		10	
2K	53	MON HDG POINTER AND TAPE	1	2.03	100		10	AP
							10	
2K	54	ADJ MFD BRIGHTNESS	1	2	100	100	10	
2K	55	ADJ MFD CONTRAST	1	2	100	100	10	
2K	56	MON MFD FOR ATC SITUATION DISP	1	5	100		10	
			2	10	50		10	
			3	15			10	
			4	30	15		10	
2K	57	MON MFD FOR ATC SITUATION DISP	1	45	10		10	
			2	60	10		10	
			3	90	10		10	
			4	120	10		10	
2K	58	MON MFD FOR ATC SITUATION DISP	1	240	10		10	
			2	360	10		10	
			3	540	10		10	
			4	1140	10		10	
2L	01	RESET T/A/M SEL SW	1	2.67	100	100	10	AP
2L	02	ADJ NCDU DIM CONT	1	2.78	100	100	10	AP1
2L	03	MON NCDU ALERT LT ON	1	2.08	100		10	AP
2L	04	MON NCDU ALERT LT	1	2.08	100		10	
2L	05	MON NCDU FAIL LT ON	1	2.08	100		10	
2L	06	MON NCDL FAIL LT OFF	1	2.08	100		10	
2L	07	MON INITILIZE MODE DATA	1	2.34	100		10	AP
			2	2.00	100		10	AP
			3	4	100		10	
2L	08	MON ATC CLR MODE DATA	1	2.34	100		10	
			2	2.08	100		10	AP
2L	09	MON FLT PLN 1 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	AP
2L	10	MON FLT PLN 2 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	11	MON NAV DATA 1 MODE DATA	1	2.34	100		10	
			2	2.06	100		10	
2L	12	MON NAV DATA 2 MODE DATA	1	2.34	100		10	
			2	2.06	100		10	
2L	13	MON NAV DATA 3 MODE DATA	1	2.34	100		10	
			2	2.06	100		10	
2L	14	MON SEL 1 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	AP
2L	15	MON SEL 2 MODE DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	16	MON LOOK UP 1 STATUS DATA	1	2.34	100		10	
			2	2.08	100		10	AP
			3	7	100		10	
2L	17	MON LOOK-UP 2 ROUTE DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	18	MON LOOK-UP 3 AIRPRT DATA	1	2.34	100		10	
			2	2.08	100		10	
2L	19	MON LINE 8 MESSAGE	1	2.34	100		10	

		2	2.06	100		10	
2L	20 PRESS ENT KEY	1	1.47	100	100	10	AP
		2	1.51	100	100	10	AP
		3	1.35	100	100	10	
2L	21 PRESS EXEC KEY	1	1.42	100	100	10	AP
		2	1.46	100	100	10	AP
		3	1.35	100	100	10	
		4	1.52	100	100	10	AP1
2L	22 PRESS REJ KEY	1	1.53	100	100	10	AP
		2	1.35	100	100	10	
2L	23 PRESS CLR KEY	1	1.53	100	100	10	
		2	1.35	100	100	10	
2L	24 PRESS UP KEY	1	1.50	100	100	10	AP
		2	1.32	100	100	10	
2L	25 PRESS DOWN KEY	1	1.50	100	100	10	AP
		2	1.32	100	100	10	AP
2L	26 PRESS NO.1 KEY	1	1.45	100	100	10	AP
		2	1.41	100	100	10	AP
		3	1.35	100	100	10	
2L	27 PRESS NO.2 KEY	1	1.35	100	100	10	AP
		2	1.48	100	100	10	
2L	28 PRESS NO.3 KEY	1	1.35	100	100	10	AP
		2	1.46	100	100	10	AP
2L	29 PRESS NO.4 KEY	1	1.35	100	100	10	AP
		2	1.46	100	100	10	
2L	30 PRESS NO.5 KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	31 PRESS NO.6 KEY	1	1.35	100	100	10	AP
		2	1.44	100	100	10	AP
2L	32 PRESS NO.7 KEY	1	1.35	100	100	10	AP
		2	1.46	100	100	10	
2L	33 PRESS NO.8 KEY	1	1.44	100	100	10	AP
		2	1.35	100	100	10	
2L	34 PRESS NO.9 KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	35 PRESS NO.0 KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	36 PRESS (DECIMAL PT) KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	37 PRESS A/WPT KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	38 PRESS B/AWY KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	39 PRESS C KEY	1	1.38	100	100	10	AP
		2	1.46	100	100	10	
2L	40 PRESS D KEY	1	1.35	100	100	10	AP
		2	1.32	100	100	10	AP
		3	1.46	100	100	10	
2L	41 PRESS E KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	42 PRESS F/F-L KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	43 PRESS G/ALT KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	
2L	44 PRESS H/RTE KEY	1	1.48	100	100	10	AP
		2	1.35	100	100	10	
2L	45 PRESS I/RWY KEY	1	1.45	100	100	10	AP
		2	1.35	100	100	10	
2L	46 PRESS J KEY	1	1.35	100	100	10	
		2	1.46	100	100	10	

2L	47	PRESS K KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	48	PRESS L KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	49	PRESS M/GS KEY	1	1.47	100	100	10	AP
			2	1.35	100	100	10	
2L	50	PRESS N KEY	1	1.41	100	100	10	AP
			2	1.35	100	100	10	
2L	51	PRESS O/SID KEY	1	1.35	100	100	10	AP
			2	1.46	100	100	10	
2L	52	PRESS P/STAR KEY	1	1.35	100	100	10	AP
			2	1.46	100	100	10	
2L	53	PRESS Q KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	54	PRESS R KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	55	PRESS S KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	56	PRESS T/PTA KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	57	PRESS U KEY	1	1.36	100	100	10	AP
			2	1.46	100	100	10	
2L	58	PRESS V KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	59	PRESS W KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	60	PRESS X KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	61	PRESS Y KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	62	PRESS Z KEY	1	1.35	100	100	10	
			2	1.46	100	100	10	
2L	63	PRESS INIT KEY	1	1.48	100	100	10	AP
			2	1.35	100	100	10	
2L	64	PRESS ATC CLR KEY	1	2.03	100	100	10	AP
			2	1.35	100	100	10	
			3	1.46	100	100	10	
2L	65	PRESS FLT PLN KEY	1	2.03	100	100	10	AP
			2	1.40	100	100	10	AP
			3	1.35	100	100	10	
2L	66	PRESS NAV DATA KEY	1	2.03	100	100	10	
			2	1.46	100	100	10	
			3	1.35	100	100	10	
2L	67	PRESS SEL KEY	1	2.03	100	100	10	AP
			2	1.39	100	100	10	AP
			3	1.46	100	100	10	
2L	68	PRESS LOOK-UP KEY	1	2.03	100	100	10	AP
			2	1.39	100	100	10	AP
			3	1.46	100	100	10	
2L	69	MON NCDA TEST FORMAT	1	5	100		10	
3A	01	MONITOR IDICATED AIRSPEED INDIC	1	.6	100		10	
			2	2.05	80		10	
			3	2.37	80		10	
			4	2.11	80		10	CP
3A	02	SET V1 BUG	1	2.57	20	100	10	P
			2	5.00	20	100	10	
			3	2.57	20	100	10	
3A	03	MON IAS POINTER PASSING V1 BUG	1	.2	100		10	
			2	2.05	100		10	
			3	2.37	100		10	

			4	2.11	100			10			
3A	04	MON V1 BUG SETTING	1	2.57	80			10			
			2	5.00	80			10			
3A	05	SET V-REF BUG	1	5.00	20	100		10			
			2	2.57	20	100		10			
			3	2.57	20		100	10			
3A	06	MON IAS POINTER	1	.2	100			10			
		PASSING V-REF BUG	2	2.05	100			10			
			3	2.37	100			10			
			4	2.11	100			10			
3A	07	MON V-REF BUG	1	5	80			10			
		SETTING	2	2.57	80			10			
			3	2.37	80			10			
3A	08	MON IAS POINTER	1	.2	100			10			
		OVERLAPPING V-MO	2	2.05	100			10			
		INDIC	3	2.37	100			10			
			4	2.11	100			10			
3A	09	MON IAS 80 KNOTS	1	2.05	100			10			
			2	2.11	100			10			
			3	2.37	100			10			
3A	10	MONITOR AIRSPEED	1	10	10			10			
		INDIC	2	5	10			10			
			3	30	10			10			
			4	60	10			10			
3A	11	MONITOR AIRSPEED	1	300	10			10			
		INDIC	2	120	10			10			3A
			3	90	10			10			
			4	20	10			10			
3A	12	F.O. CHECK CAPTIS	1	3.	100			10			
		V-REF BUG SETTING						10			
3A	13	CAPT CHECK F.O.aS	1	3.	100			10			
		V-REF BUG SETTING						10			
3A	14	MON AIRSPEED INDIC	1	285	10			10			
			2	180	10			10			
			3	240	10			10			
3F	01	MON MACH NO INDIC	1	2	100			10			
			2	2.05	100			10			
			3	2.37	10			10			
			4	2.11	100			10			
3F	02	MON MACH AIRSPEED	1	2.00				10	100		
		WARNING CLACKER						10			
3F	03	ACTUATE MACH AIRSPD	1	2.69	100	100		10			CP
		TEST SW	2	2.69	100		100	10			
3H	01	SET ALTIMETER SW	1	2.10	100	100		10			
		TO ON	2	2.10	100		100	10			
3H	02	MON CORR BARO ALT	1	.6	100			10			
		INDIC	2	2.05	100			10			
			3	2.13	100			10			
			4	2.37	100			10			
3H	03	SET ALTIMETER BARO	1	5.00	10	100		10			
		SETTING CONTROL	2	2.65	10		100	10			
			3	2.65	10	100		10			
			4	5.00	10		100	10			
3H	04	MONITOR ALTIMETER	1	.77	90			10			
		BARO SETTING INDIC	2	2.37	90			10			
			3	2.65	90			10			
			4	5.00	90			10			
3H	05	F.O. CHECK CAPTaS	1	3.00	100			10			
		ALTIMETER BARO SET						10			
		AND INDICATED ALTI-						10			

		TUDE							10		
3H	06	MON ALTIMETER	1	7	50				10		
			2	10	10				10		
			3	30	10				10		
			4	60	10				10		
3H	07	MON ALTIMETER	1	5	10				10		
			2	240	10				10		
3H	08	MON BARO ALT	1	300	10				10		
3J	01	MON RADIO ALT	1	2	100				10		P
		ALTITUDE INDIC	2	2.23	100				10		CP
3J	02	MON RADIO ALTIMETER	1	2.15	100				10		
		WARNING FLAG IN VIEW	2	2.23	100				10		
3J	03	MON RADIO ALTIMETER	1	2.15	100				10		
		WARNING FLAG OUT OF	2	2.23	100				10		
		VIEW							10		
3J	04	ADJUST RADIO ALTI-	1	2.65	100	100			10		CP
		METER MIN DECISION	2	2.68	100		100		10		P
		ALT CURSOR CONT							10		
3J	05	MON RADIO ALTIMETER	1	2.15	100				10		
		MIN DECISION ALT	2	2.23	100				10		
		CURSOR							10		
3J	06	ACTUATOR RADIO ALT	1	1.45	100	100			10		CP
		TEST SW	2	2.03	100	100			10		P
			3	1.45	100		100		10		P
			4	2.02	100		100		10		P
3J	07	MON RADIO ALT TEST	1	2.15	100				10		
		ALT INDIC	2	2.23	100				10		
3J	08	MON RADIO ALT MDA	1	2.15	100				10		
		LT CN	2	2.23	100				10		
3J	09	MON RADIO ALT MDA	1	2.15	100				10		
		LT OFF	2	2.23	100				10		
3K	01	SET NEW ALTITUDE ON	1	5	10	100			10		
		ALTITUDE ALERT PNL	2	2.72	10		100		10		P
3K	02	MON ALT ALERT ALT	1	.76	90				10		P
		INDIC	2	2.72	90				10		
			3	5.00	90				10		
3K	03	SET ALT ALERT BARO	1	2.72	10	100			10		
			2	5.00	10	100			10		
3K	04	MON ALT ALERT BARO	1	.76	90				10		
		SET INDIC	2	2.72	90				10		
			3	5.00	90				10		
3K	05	MON ALT ALERT LT ON	1	2.16	100				10		AC
3K	06	MON ALT ALERT LT OFF	1	2.16	100				10		
3K	07	MON ALT ALERT ALARM	1						10	100	
3L	01	MON VERTICAL SPEED	1	2.12	100				10		
		INDIC	2	2.03	100				10		
			3	2.31	100				10		
			4	2.24	100				10		CP
3L	02	MON VERTICAL SPEED	1	10	10				10		
		INDIC	2	5	10				10		
			3	30	10				10		
			4	60	10				10		
3L	03	MON VERTICAL SPEED	1	300	10				10		
		INDIC	2	120	10				10		
			3	90	10				10		
			4	60	10				10		
3L	04	MON IVSI INDIC	1	285	10				10		
			2	20	10				10		
			3	180	10				10		
			4	240	10				10		

3L	05	MON IVSI	1	.6	100		10	
3N	01	WIND AND SET CLOCK	1	2.50	20	100	10	
			2	2.50	20	100	10	
3N	02	MONITOR CLOCK	1	2.10	80		10	
			2	2.16	80		10	
			3	2.24	80		10	C
			4	2.19	80		10	CP
3N	03	START ELAPSED TIME INDIC	1	2.10	5	50	5 5	
3N	04	RESET ELAPSED TIME INDIC	1	2.10	5	50	5 5	
3N	05	MONITOR CLOCK	1	5	10		10	
			2	10	10		10	
			3	240	10		10	
3P	01	ACTUATE GYRO CAGING SW	1	2.70	100	100	10 10	
3P	02	SET GYRO PITCH TRIM	1	2.22	100	100	10	
3P	03	MON STDBY HORIZON INDIC PWR FAIL FLAG	1	2.22	100		10 10	
3P	04	MON AIRPLANE REF	1	2.22	100		10	
3P	05	MONITOR BANK ANGLE INDIC	1	2.22	100		10 10	
3P	06	MONITOR PITCH ANGLE INDIC	1	2.22	100		10 10	
3R	10	MON PITCH ATTITUDE INDIC ON FDI	1	2.05	100		10	
			2	.211	100		10	
			3	2.58	100		10	
			4	10	10		10	
3R	11	MON BANK ATTITUDE INDIC ON FDI	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	12	MON DECISION HGT LT ON FDI	1	2.05	50		10	
			2	.211	50		10	
			3	2.58	50		10	
3R	13	MON DECISION HGT LT OFF ON FDI	1	2.05	50		10	
			2	2.11	50		10	
			3	2.58	50		10	
3R	14	MON COMMAND BAR ATTITUDE INDIC ON FDI	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	15	MON RED FLAG IN VIEW ON FDI	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	16	MONTIOR INDICATION OF DEVIATION FROM LOCALIZER ON FDI	1	2.21	100		10	C
			2	3	100		10	
			3	10	15		10	
			4	240	15		10	
3R	17	MON SLIP INDIC ON FDI	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	18	MON FD FLAG OUT OF VIEW ON FDI	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	19	MON RUNWAY FLAG IN VIEW ON FDI	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	20	MON RUNWAY FLAG OUT OF VIEW ON FDI	1	2.05	100		10	
			2	2.11	100		10	
			3	2.58	100		10	
3R	21	MON RATE OF TURN	1	2.05	100		10	

		FLAG ON FDI	2	2.11	100			10		
			3	2.58	100			10		
3R	22	MONITOR RUNWAY	1	2.05	100			10		
		SYMBOL OUT OF VIEW	2	2.11	100			10		
		ON FDI	3	2.58	100			10		
3R	23	MONITOR ATTITUDE	1	2.05	100			10		
		RELATIVE TO RUNWAY	2	2.11	100			10		
		SYMBOL ON FDI	3	2.58	100			10		
3R	24	ACTUATE FDI PRESS-	1	2.01	100	100		10		CP
		TO-TEST SW	2	1.81	100		100	10		P
3R	25	NON FDI TEST INDIC	1	2.05	100			10		
			2	2.11	100			10		
			3	2.58	100			10		
3R	26	MON GLIDE SLOPE	1	2.05	100			10		
		FLAG OUT OF VIEW ON	2	2.11	100			10		
		FDI	3	2.58	100			10		
3R	27	MON GLIDE SLOPE FLAG	1	2.05	100			10		
		IN VIEW ON ADI	2	2.11	100			10		
			3	2.58	100			10		
3R	28	MON GYRO FLAG IN	1	2.05	100			10		
		VIEW ON FDI	2	2.11	100			10		
			3	2.58	100			10		
3R	29	MON GYRO FLAG OUT OF	1	2.05	100			10		
		VIEW ON FDI	2	2.11	100			10		
			3	2.58	100			10		
3R	30	MON GLIDE SLOPE	1	2.05	100			10		
		ATTITUDE INDIC ON	2	2.11	100			10		
		FDI	3	2.58	100			10		
3R	31	MON A/C ATTITUDE	1	2.58	100			10		
		ON FDI	2	2.05	100			10		
			3	2.11	100			10		
			4	10	10			10		
3R	32	SET PITCH TRIM CONT	1	2.71	100		100	10		CP
		ON FDI						10		
3R	33	MON RADIO ALT INDIC	1	2.05	100			10		
		ON FDI	2	2.11	100			10		
			3	2.58	100			10		
3R	34	MON RATE OF TURN	1	2.05	100			10		
		INDIC ON FDI	2	2.11	100			10		
			3	2.58	100			10		
3R	35	MON SPEED POINTER	1	2.05	100			10		
		AND COMMAND INDIC	2	2.11	100			10		
			3	2.58	100			10		
3R	40	MON FD VERT SPD TAPE	1	2.01	100			10		P
3R	41	SET FD PITCH MODE	1	2.92	100		100	10		P
		SEL TO ALT HOLD						10		
3R	42	SET FD PITCH MODE	1	2.92	100		100	10		P
		SEL TO VERT SPEED						10		
		MODE AND ADJUST VERT						10		
		SPEED						10		
3R	43	SET FD MODE SEL TO	1	2.01	100		100	10		
		OFF						10		
3R	44	SET FD MODE SEL TO	1	2.01	100		100	10		
		HDG						10		
3R	45	SET FD MODE SEL TO	1	2.01	100		100	10		
		RAD						10		
3R	46	SET FD MODE SEL TO	1	2.01	100		100	10		
		BB						10		
3R	47	CHECK THAT F.D. MODE	1	1.01	100			10		P
		SEL SW SET TO OFF						10		

3R	48	CHECK THAT F.D.	1	2.25	100			10		CP
		PITCH CONT SET TO	2	.98	100			10		P
		FULL CLOCKWISE						10		
3R	49	SET VHF/NAV SW TO	1	2.53	100		100	10		P
		NORMAL						10		
3R	50	SET VHF/NAV SW TO	1	2.53	100		100	10		
		NO.1						10		
3R	51	SET VHF/NAV SW TO	1	2.53	100		100	10		
		NO.2						10		
3R	52	SET VERT GYRO SEL SW	1	1.46	100	100		10		P
		TO NO.1	2	2.15	100	100		10		P
3R	53	SET VERT GYRO SEL SW	1	1.46	100	100		10		
		TO NO.2	2	2.15	100	100		10		
3R	54	SET COMPUTER SEL SW	1	1.85	100	100		10		P
		TO NO.1	2	2.14	100	100		10		P
			3	2.55	100	100		10		P
3R	55	SET COMPUTER SEL SW	1	1.85	100	100		10		
		TO NO.2	2	2.14	100	100		10		
			3	2.55	100	100		10		
3R	56	MON PITCH ATTITUDE	1	5	10			10		
		INDIC ON FDI	2	30	10			10		
			3	60	10			10		3R
			4	90	10			10		
3R	57	MON PITCH ATTITUDE	1	120	10			10		
		INDIC ON FDI	2	285	10			10		
			3	20	10			10		
3R	58	MON A/C ATTITUDE	1	10	10			10		
		RELATIVE TO ROLL	2	285	10			10		
		COMMAND ON						10		3R
		FDI						10		
3R	59	MON INITIAL MOVEMENT	1	2.58	50			10		
		OF ROLL COMMAND						10		
		BAR ON FDI						10		
3R	60	MON INITIAL MOVEMENT	1	2.58	50			10		
		OF GLIDE SLOPE						10		
		COMMAND BAR ON FDI						10		
3R	61	MON INDICATION OF	1	180	50			10		
		DEVIATION FROM	2	5	50			10		
		LOCALIZE AND GLIDE						10		
		SLOPE ON FDI								
3R	62	MONITOR LOCALIZER	1	5	20			20		
		INDICATOR ON FDI	2	10	20			20		
			3	30	20			20		
			4	60	20			20		
3R	63	MON GLIDE SLOPE	1	5	20			20		
		ATT INDIC ON FDI	2	10	20			20		
			3	30	20			20		
			4	60	20			20		
3R	64	MON COMMAND BAR	1	5	20			10		
		ATTITUDE INDIC ON	2	10	20			10		
		FDI	3	30	20			10		
			4	60	20			10		
3R	65	MON COMMAND BAR	1	90	20			10		
		ATTITUDE INDIC ON	2	120	20			10		
		FDI	3	300	20			10		
			4		20			10		
3S	01	MONITOR A/C HEADING	1	2.23	100			10		
		RELATIVE TO SELECTED	2	10	10			10		
		HDG ON CI	3	5	10			10		
			4	30	10			10		

3S	02	MON COMPASS FLAG IN VIEW ON CI	1	2.23	100			10		
			2	.78	100			10		
3S	03	MON COMPASS FLAG OUT OF VIEW ON CI	1	2.23	100			10		
			2	.78	100			10		
3S	04	MON A/C POSITION RELATIVE TO SELECTED COURSE ON CI	1	2.10	100			10		
			2	5.00	100			10		
			3	10	10			10		
			4	240	10			10		
3S	05	MON COURSE PNTR IND ON CI	1	2.10	100			10		
			2	2.23	100			10		
3S	06	MON L-C WARNING FLAG IN VIEW ON CI	1	2.23	100			10		
			2	.78	100			10		
3S	07	MON L-C WARNING FLAG OUT OF VIEW ON CI	1	2.23	100			10		
			2	.78	100			10		
3S	08	MON COURSE DIGITAL INDIC ON CI	1	2.23	90			10		
			2	.78	90			10		
3S	09	MON GLIDE SLOPE FLAG IN VIEW ON CI	1	2.23	100			10		
			2	.78	100			10		
3S	10	MON GLIDE SLOPE FLAG OUT OF VIEW ON CI	1	2.23	100			10		
			2	.78	100			10		
3S	11	SET COURSE DIGITS AND POINTER ON CI USING COURSE CURSOR CONT	1	4.92	10		100	10		
			2	2.87	10		100	10		C
			3	2.87	10	100		10		
								10		
3S	12	SET HEADING CURSOR ON CI USING HDG CURSOR CONT	1	5	50		100	10		
			2	4.13	50		100	10		
			3	2.55	50		100	10		
			4	2.14	50		100	10		C
3S	13	MON DEVIATION FROM GLIDE SCOPE ON CI	1	.78	100			10		
			2	2.23	100			10		
3S	14	MON COMPASS HDG IND ON CI	1	.78	100			10		
			2	2.23	100			10		
3S	15	MONITOR A/C HEADING RELATIVE TO SELECTED HEADING ON CI	1	60	10			10		
			2	90	10			10		
			3	120	10			10		
			4	20	10			10		
3S	16	MON INDIC THAT A/C ABEAM OF MARKER AND ON HEADING	1	2.23	10			10		
								10		
								10		
3S	17	MON A/C HEADING RELATIVE TO SELECTED COURSE ON CI	1	30	10			10		
			2	90	10			10		
			3	180	10			10		3S
			4	285	10			10		
3S	18	SET COMPASS SEL SW TO NO.1	1	2.15	100	100		10		
								10		
3S	19	SET COMPASS SEL SW TO NO.2	1	2.15	100	100		10		
								10		
3S	20	MON INDIC OF MARKER FLY OVER ON CI	1	2.23	100			10		
								10		
3S	21	MON A/C HEADING RELATIVE TO SELECTED COURSE ON CI	1	300	10			10		
3U	01	MON TOTAL AIR TEMP INDIC	1	2.25	100			10		CP
			2	2.29	100			10		CP
			3	1.17	100			10		CP
			4	2.18	100			10		AC
3V	01	MON GO AROUND ANNUN LT ON	1	1.21	100			10		CP
			2	.92	100			10		P
3V	02	MON GO AROUND ANNUN LT OFF	1	1.21	100			10		
			2	.92	100			10		

3V	03	MON ALT HOLD ANNUN	1	1.21	100				10			
		LT ON	2	.92	100				10			
3V	04	MON ALT HOLD ANNUN	1	1.21	100				10			
		LT OFF	2	.92	100				10			
3V	05	MON VOR LOC ANNUN	1	1.21	100				10			
		LT OFF	2	.92	100				10			
3V	06	MON LOC ANNUN	1	1.21	100				10			
		LT GREEN	2	.92	100				10			
3V	08	MON GLIDE SLOPE	1	1.21	100				10			
		ANNUN LT AMBER	2	.92	100				10			
3V	09	MON GLIDE SLOPE	1	1.21	50				10			
		ANNUN LT GREEN	2	.92	50				10			
3V	10	MON GLIDE SLOPE	1	1.21	100				10			
		ANNUN LT OFF	2	.92	100				10			
3V	11	MONITOR OUTER MARKER	1	1.91	25				10	100		CP
		LT ON AND AUDIBLE	2	.72	25				10			
		SIGNAL							10			
3V	12	MON OUTER MARKER LT	1	1.91	25				10	100		
		OFF AND AUDIBLE SIG	2	.72	25				10			
		SILENT							10			
3V	13	MONITOR MIDDLE	1	1.91	25				10	100		
		MARKER ANNUN LT ON	2	.72	25				10			
		AND AUDIBLE SIGNAL										
3V	14	MON MIDDLE MARKER	1	1.91	25				10	100		
		ANNUN LT OFF AND	2	.72	25				10			
		AUDIBLE SIG SILENT							10			
3V	15	MON AIRWAYS MKR	1	1.91	25				10	100		
		ANNUN LT FLASHING	2	.72	25				10	100		P
		AND INTRMT AUDIBLE							10			
		SIGNAL							10			
3V	16	MON AIRWAYS MKR	1	1.91	100				10	100		
		ANNUN LT ON STEADY	2	.72	100				10	100		
		AND STEADY AUDIBLE							10			
		SIGNAL							10			
3V	17	MON AIRWAYS MKR	1	1.91	100				10	100		
		ANNUN LT OFF AND	2	.72	100				10	100		
		AUDIBLE SIG SILENT							10			
3V	18	SET MARKER SW TO LO	1	2.07	100		100		10			
3V	19	SET MKR SW TO HI	1	2.07	100		100		10			
3V	20	MON WINGS LEVEL LT	1	1.21	100				10			
		ON GREEN	2	.92	100				10			
3V	21	MON WINGS LEVEL LT	1	1.21	100				10			
		OFF	2	.92	100				10			
3V	22	MON BACK BEAM LT ON	1	1.21	100				10			
		GREEN	2	.92	100				10			
3V	23	MON BACK BEAM LT OFF	1	1.21	100				10			
			2	.92	100				10			
3V	24	MON HDG ON GREEN	1	1.21	100				10			
			2	.92	100				10			
3V	25	MON HDG LT OFF	1	1.21	100				10			
			2	.92	100				10			
3V	26	SET NO.2 COMM RECVIR	1	2.43	100	100			10			CP
		MKR SW TO ON	2	1.43	100	100			10			P
3V	27	SET NO.2 COMM RECVIR	1	2.43	100	100			10			
		MKR SW TO OFF	2	1.43	100	100			10			
3W	01	MON INST COMP POWER	1	2.32	100				10			P
		LT ON							10			
3W	02	MON INST COMP POWER	1	2.32	100				10			
		LT OFF							10			
3W	03	MON INST COMP VERT	1	2.32	100				10			

		GYRO LT ON						10	
3W	04	MON INST COMP VERT GYRO LT OFF	1	2.32	100			10 10	
3W	05	MON INST COMP G/S LT ON	1	2.32	100			10 10	
3W	06	MON INST COMP G/S LT OFF	1	2.32	100			10 10	
3W	07	MON INST COMP LOC LT ON	1	2.32	100			10 10	
3W	08	MON INST COMP LOC LT OFF	1	2.32	100			10 10	
3W	09	MON NAV WARNING LT ON	1 2 3	.93 .68 1.56	100 100 100			10 10 10	CP P CP
3W	10	MON NAV WARNING LT OFF	1 2 3	.93 .68 1.56	100 100 100			10 10 10	
3X	01	FOLD STANDBY COMPASS INTO VIEW	1	3.5	100	100		10 10	
3X	02	MON STANDBY COMPASS HDG INDIC	1	2.0	100			10 10	
3X	03	FOLD STANDBY COMPASS OUT OF VIEW	1	1.5	100	100		10 10	
4A	01	SET FLT COUNT SYS A SW TO ON	1	3.33	100	100		10 10	P
4A	02	SET FLT CONT SYS A SW TO OFF	7	3.33	100	100		10 10	
4A	03	SET FLT CONT SYS A SW TO STDBY RUD	1	3.33	100	100		10 10	
4A	04	SET FLT CONT SYS B SW TO ON	1	3.33	100	100		10 10	
4A	05	SET FLT CONT SYS B SW TO OFF	1	3.33	100	100		10 10	
4A	06	SET FLT CONT SYS B SW TO STDBY RUD	1	3.33	100	100		10 10	
4A	07	MON FLT CONT SYS A HYD LO PRESS LT ON	1 2 3	.66 1.21 .77	100 100 100			10 10 10	P P CP
4A	08	MON FLT CONT SYS A HYD LO PRESS LT OFF	1 2 3	.66 1.21 .77	100 100 100			10 10 10	
4A	09	SET SPOILER SYS A SW TO ON	1	2.53	100	100		10 10	P
4A	10	SET SPOILER SYS A SW TO OFF	1	2.53	100	100		10 10	
4A	11	SET SPOILER SYS B SW TO ON	1	2.53	100	100		10 10	
4A	12	SET SPOILER SYS B SW TO OFF	1	2.53	100	100		10 10	
4A	13	SET YAW DAMPER SW TO ON	1	2.68	100	100		10 10	P
4A	14	SET YAW DAMPER SW TO OFF	1	2.68	100	100		10 10	
4A	15	MON FLT CONT STDBY HDY LO QTY LT ON	1 2	1.26 .53	100 100			10 10	P
4A	16	MON FLT CONT STDBY HYD LO QTY LT OFF	1 2	1.26 .53	100 100			10 10	
4A	17	MON FLT CONT STDBY HYD LO PRESS LT ON	1 2	.53 1.26	100 100			10 10	P
4A	18	MON FLT CONT STDBY	1	.53	100			10	

		HYD LO PRESS LT OFF	2	1.26	100							10				
4A	19	MON FEEL DIFF PRESS	1	1.05	100							10			P	
		LT ON										10				
4A	20	MON FEEL DIFF PRESS	1	1.05	100							10				
		LT OFF										10				
4A	21	ACTUATE CWS FOR	1	2.0	10	100	100					10				
		ROLL CONT										10				
4A	22	ACTUATE CWS FOR	1	2.0	10	100	100					10				
		PITCH CONT										10				
4A	23	ACTUATE RUDDER PEDAL	1	3	10			100	100			10				
		FOR HEADING/YAW CONT	2	20					100			10			4A	
4A	24	ACT CWS TO	1	15		100	100					10				
		ROTATE FOR LIFTOFF	2	5		100	100					10				
4A	25	MON MASTER CAUTION	1	.56	100							10			P	
4A	26	ACTUATE MASTER CAUT	1	2.14	100	100						10				
		RESET SW	2	2.14	100		100					10				
4A	27	ACTUATE ANNUN PNL	1	1.93	100	100						10				
		RECALL SW	2	2.28	100		100					10				
4A	28	ACT FLT CONTROL TO	1	5		100	10					10				
		CHANGE HDG	2	10		100	10					10				
			3	15		100	10					10				
			4	20		100	10					10				
4A	29	ACT FLT CONTROL TO	1	5		100	30					10				
		CHANGE ALT	2	10		100	30					10				
			3	15		100	30					10				
			4	20		100	30					10				
4A	30	ACT FLT CONT TO	1	5		100	30					10				
		ALIGNA/C WITH ATT	2	10		100	30					10				
		INDICATORS	3	15		100	30					10				
			4	240		100	30					10				
4A	31	MANUALLY CONTROL A/C	1	75		50	10					10				
			2	10		50	10					10				
			3	15		50	10					10				
			4	20		50	10					10				
4A	32	MON FLT CONT	1	.56	100							10				
		ANNUN LT ON										10				
4A	33	MON FLT COUNT ANNUN	1	.56	100							10				
		LT OFF										10				
4A	34	MON MASTER CAUTION	1	.56	100							10				
		AND CVHD ANNUN LTS										10				
		ON										10				
4A	35	MON OVHD ANNUN LT ON	1	.56	100							10				
4A	36	MON OVHD ANNUN LT	1	.56	100							10				
		OFF										10				
4A	38	MON STALL WARNING	1	1.0	100							10	100			
		STICK SHAKER										10				
4A	39	SET STALL WARNING	1	3.23	100		100					10			P	
		SW TO HTR OFF	2	2.16	100		100					10			P	
4A	40	SET STALL WARNING	1	3.23	100		100					10				
		SW TO NORMAL	2	2.16	100		100					10				
4A	41	SET STALL WARNING	1	3.23	100		100					10				
		SW TO TEST	2	2.16	100		100					10				
4A	42	MON STALL WARNING	1	.55	100							10			P	
		OFF LT ON	2	.32	100							10			P	
4A	43	MON STALL WARNING	1	.55	100							10				
		OFF LT OFF	2	.32	100							10				
4A	44	SET YAW DAMPER TEST	1	2.48	100		100					10			P	
		SW TO L										10				
4A	45	SET YAW DAMPER TEST	1	2.48	100		100					10				
		SW TO R										10				

4A	46	ADJUST RUDDER PEDALS FORE AND AFT FOR COMFORT	1	3.0		100	100	100	100	100	10 10 10		
4A	48	CHECK FLIGHT CONT SYS A SW SET TO ON	1	2.79		100					10 10		P
4A	49	CHECK FLIGHT CONT SYS B SW SET TO ON	1	2.02		100					10 10		P
4A	50	CHECK ALT FLAPS SW SET TO OFF	1	2.04		100					10 10		P
4A	51	CHECK SPOILER SYS A SW SET TO ON	1	2.04		100					10 10		P
4A	52	CHECK SPOILER SYS B SW SET TO ON	1	2.02		100					10 10		P
4A	53	CHECK YAW DAMPER SW SET TO OFF	1	2.02		100					10 10		P
4A	54	MON YAW DAMPER LT OFF	1 2	1.21		100					10 10		P
4A	55	MON YAW DAMPER LT ON	1	1.21		100					10		
4A	56	SET STABILIZER BRAKE	1 2	1.97 3.16		100 100	100	100			10 10		CP P
4A	57	RELEASE STAB BRAKE	1 2	1.97 3.16		100 100	100	100			10 10		
4A	58	MON YAW DAMPER IND	1	2.01	20	80					10		P
4A	59	MON A/P DISENGAGE LT ON	1	.68		100					10 10		P
4A	60	MON ELEV POSITION INDIC	1	2.24		100					10 10		P
4A	61	MON STALL WARNING TEST INDIC	1	2.01		100					10 10		P
4A	62	MON FLT CONT SYS B HYD LO PRESS LT ON	1 2	.66 1.21		100 100					10 10		
4A	63	MON FLT CONT SYS B HYD LO PRESS LT OFF	1 2	.66 1.21		100 100					10 10		
4A	64	MANUALLY CONTROL A/C	1 2 3 4	32 10 5 30			80 50 50 50	30 10 10 10			10 10 10 10		
4A	65	MANUALLY CONTROL A/C	1 2 3 4	60 300 120 90			50 50 50 50	10 10 10 10			10 10 10 10		
4A	66	MANUALLY CONTROL A/C TO MAKE RIGHT TURN IN HOLDING PATTERN	1 2	90 75			100 100	10 10			10 10 10		
4A	67	ROLL OUT TO LEVEL CONFIGURATION	1	.001							10 10		
4A	68	MANUALLY CONT A/C	1 2 3 4	26 90 90 285			100 50 10 50	30 10 100 10			10 10 10 10		
4A	69	ACT FLT CONT TO ALIGN A/C WITH ATT INDICATORS	1 2 3 4	180 180 30 60			100 30 100 100	30 100 30 30			10 10 10 10		
4A	70	ADJUST PANEL MOUNTED CONTROLLER HEIGHT	1	3		100	100	100			10 10		
4A	71	ACT FLT CONTROLS TO CHANGE HDG	1	2			100	30			10 10		
4A	72	MANUALLY CONTROL A/C - COPILOT	1 2	5 10			10 10	50 50			10 10		

			3	30		10	50	10		
			4	60		10	50	10		
4A	73	MANUALLY CONTROL A/C - COPILOT	1	90		10	50	10		
			2	120		10	50	10		
			3	240		10	50	10		
			4	300		10	50	10		
4A	74	ACTUATE CONTROLS TO CHANGE HEADING	1	5		10	50	10		
			2	10		10	100	10		
			3	15		10	100	10		
			4	20		10	100	10		
4A	75	CONTROL A/C ON FINAL APPROACH	1	5		10	100	10		
			2	10		10	100	10		
			3	15		10	100	10		
			4	245		10	100	10		
4A	76	STABILIZE CNTRL COL	1	2.5		100	50	10		
			2	2.5		50	100	10		
4A	77	TRIM STAB MANUALLY	1	2.5			50	10		
			2	2.5		50		10		
4A	78	ACT FLT CONT TO ALIGN A/C WITH ATT INDICATORS FD+CI	1	30		30	100	10		
			2	60		30	100	10		
4B	01	ACTUATE ENG NO.1 THROTTLE	1	2.34			100	10		
			2	2.82			100	10		
			3	2.44			100	10		
			4	2.51			100	10		
4B	02	ACTUATE ENG NO.2 THROTTLE	1	2.34			100	10		
			2	2.42			100	10		
			3	2.44			100	10		
			4	2.51			100	10		
4B	03	ACTUATE BOTH THROTTLES	1	2.34			100	10		
			2	2.82			50	10		
			3	2.44			100	10		
			4	2.51			100	10		
4B	04	CHECK THAT THRUST LEVERS IN CLOSED POS	1	2.54	100			10		P
								10		
4B	05	ADVANCE THRUST LVRS TO NEAR VERTICAL POS	1	3.15			100	10		P
								10		
4B	06	ADVANCE THRUST LVRS TO TAKEOFF THRUST	1	2.44			100	10		P
								10		
4B	07	MAKE MINOR THRUST ADJUSTMENT	1	2.73		100		10		AP
			2	2.73			100	10		
4B	08	SET THRUST LEVERS TO IDLE	1	2.50			100	10		
			2	2.50		100		10		
4C	01	SET THRUST REVERSER LEVERS TO ON	1	2.74			100	10		P
			2	21			100	100		
			3	21		100		10		
4C	02	SET THRUST REVERSER LEVERS TO OFF	1	2.76			100	10		P
			2	2.76		100		10		
4C	03	MON ENG NO 1 REVERSER UNLOCKED LT ON	1	.76	100			10		P
			2	.54	100			10		P
4C	04	MON ENG NO 1 REVERSER UNLOCKED LT OFF	1	.55	100			10		P
			2	.76	100			10		4C
4C	05	MON ENG NO 2 REVERSER UNLOCKED LT ON	1	.76	100			10		
			2	.54	100			10		
4C	06	MON ENG NO 2 REVERSER UNLOCKED LT OFF	1	.55	100			10		
			2	.76	100			10		
4C	07	MON REVERSER ISOLATION VALVE LT ON	1	.76	100			10		
								10		
4C	08	MON REVERSER ISOLATION VALVE LT OFF	1	.76	100			10		
								10		

4C	09	MON MASTER CAUTION AND OVRHD ANNUN LTS ON	1	.73	100			10 10 10		
4C	10	PRESS MASTER CAUTION RESET SW	1	2.13	100	100		10		
			2	2.49	100	100		10		
4C	11	MON OVRHD CAUTION LT ON	1	.54	100			10 10		
4C	12	MON OVRHD CAUTION LT OFF	1	.54	100			10 10		
4C	13	PRESS ANNUN PNL RECALL SW	1	2.13	100	100		10		
			2	2.49	100	100		10		
4C	14	SET ENG NO.1 THRUST REVERSER OVERRIDE SW TO NORMAL	1	3.29	100	100		10 10 10		P
4C	15	SET ENG NO.1 THRUST REVERSE OVERRIDE SW TO OVERRIDE	1	3.29	100	100		10 10 10		
4C	16	SET ENG NO.2 THRUST REVERSER OVERRIDE SW TO NORMAL	1	1.91	100	100		10 10 10		P
4C	17	SET ENG NO.2 THRUST REVERSER OVERRIDE SW TO OVERRIDE	1	1.91	100	100		10 10 10		
4C	18	MON THRUST REVERSER ARMED LT ON	1	.53	100			10 10		P
4C	19	MON THRUST REVERSER ARMED LT OFF	1	.53	100			10 10		
4C	20	MON THRUST REVERSER LO PRESS LT ON	1	1.30	100			10 10		P
4C	21	MON THRUST REVERSER LO PRESS LT OFF	1	1.30	100			10 10		
4C	22	MON THRUST REVERSER OVERRIDE SW=S IN NORMAL	1	2.18	100	100		10 10 10		
4C	23	CHECK THAT REV THRST LEVERS SET TO OFF	1	1.20	100			10 10		P
4D	01	SET LNDG GEAR LVR TO UP POSITION	1	3.06	50	100		10		C
			2	3.27	50	100		10		CP
			3	2.53	50	100		10		
4D	02	SET LANDING GEAR LVR TO OFF POSITION	1	3.06	100	100		10		
			2	3.27	100	100		10		
			3	2.53	100	100		10		
4D	03	SET LANDING GEAR LEVER TO DOWN POSITION	1	4	25	100		10		
			2	2.53	25	100		10		C
			3	3.27	25	100		10		
			4	3.06	25	100		10		
4D	04	MONITOR LANDING GEAR LEVER POSITION	1	2.09	100			10 10		P
4D	05	MONITOR NOSE GEAR DOWN AND LOCKED LT ON	1	2.00	100			10		
			2	.54	100			10		
			3	.72	100			10		
4D	06	MONITOR NOSE GEAR DOWN AND LOCKED LT OFF	1	.54	100			10		C
			2	.72	100			10		CP
4D	07	MONITOR NOSE GEAR UNLOCKED LT ON	1	.54	100			10 10		
			2	.72	100			10		
4D	08	MON NOSE GEAR UNLOCKED LT OFF	1	.54	100			10 10		
			2	.72	100			10		
4D	09	MONITOR LEFT/RT GEAR DOWN AND LOCKED LT	1	2.00	100			10 10		
			2	.72	100			10		

		ON	3	.54	100					10		
4D	10	MON LEFT/RT GEAR	1	.54	100					10		
		DOWN AND LOCKED LT	2	.72	100					10		
		OFF								10		
4D	11	MON LEFT/RT GEAR	1	.54	100					10		
		UNLOCKED LT ON	2	.72	100					10		
4D	12	MON LEFT/RT GEAR	1	.54	100					10		
		UNLOCKED LT OFF	2	.72	100					10		
4D	13	ACTUATE LANDING GEAR								10		
		LEVER OVERRIDE								10		
		TRIGGER								10		
4D	14	OPEN MANUAL GEAR	1	3.5	100	100				10		
		HANDLE RELEASE								10		
		ACCESS COVER								10		
4D	15	CLOSE MANUAL GEAR	1	3.0	50	100				10		
		HANDLE RELEASE								10		
		ACCESS COVER								10		
4D	16	ACTUATE RIGHT MAIN	1	.7	50	100				10		
		GEAR RELEASE HANDLE								10		
4D	17	ACTUATE NOSE GEAR	1	.7	50	100				10		
		RELEASE HANDLE								10		
4D	18	ACTUATE LEFT MAIN	1	.7	50	100				10		
		GEAR RELEASE HANDLE								10		
4D	19	OPEN NOSE GEAR								10		
		VIEWING PORT								10		
4D	20	CLOSE NOSE GEAR								10		
		VIEWING PORT								10		
4D	21	INSPECT NOSE GEAR								10		
		LOCKED INDIC MARK								10		
4D	22	OPEN MAIN GEAR								10		
		VIEWING PORT								10		
4D	23	CLOSE MAIN GEAR								10		
		VIEWING PORT								10		
4D	24	INSPECT MAIN GEAR								10		
		LOCKED INDIC MARKS								10		
4D	27	PULL PARKING BRAKE	1	3.14	80		100			10		
		LEVER	2	3.06	80		100			10		
			3	4	100	100				10		
4D	28	ACTUATE BRAKES	1	1.50				100	100	10		
		USING RUDDER PEDALS	2	10				100	100	10		
			3	30				100	100	10		
4D	29	MON PARKING BRAKE	1	9999						10		
		WARNING LT ON	2	92	100					10		
			3	.25	100					10		
			4	.54	100					10		P
4D	30	MON PARKING BRAKE	1							10		
		WARNING LT OFF	2	92	100					10		
			3	.25	100					10		
			4	.54	100					10		
4D	31	MON LANDING GEAR								10	100	
		NOT DOWN AND LOCKED								10		
		WARNING HORN								10		
4D	32	ACTUATE LANDING GEAR	1	2.16	100	100				10		CP
		WARNING CUTOUT SW								10		
4D	33	SET INBD ANTI-SKID	1	2.18	100	100				10		CP
		SW TO ON	2	1.68	100	100				10		CP
4D	34	SET INBD ANTI-SKID	1	2.18	100	100				10		
		SW TO OFF	2	1.68	100	100				10		
4D	35	SET OUTBD ANTI-SKID	1	2.18	100	100				10		
		SW TO ON	2	1.68	100	100				10		

4D	36	SET OUTBD ANTI-SKID	1	2.18	100	100							10			
		SW TO OFF	2	1.68	100	100							10			
4D	37	MON ANTI-SKID INOP	1	.54	100								10			CP
		LT ON											10			
4D	38	MON ANTI-SKID INOP	1	.54	100								10			
		LT OFF											10			
4D	39	MON AUTO BRAKE INOP	1	.54	100								10			
		LT ON											10			
4D	40	MON AUTO BRAKE INOP	1	.26	100								10			CP
		LT OFF											10			
4D	41	SET AUTO BRAKE SEL	1	2.62	100	100							10			CP
		SW TO OFF	2	2.62	100		100						10			
4D	42	SET AUTO BRAKE SEL	1	2.62	100	100							10			
		SW TO MIN											10			
4D	43	SET AUTO BRAKE SEL	1	2.62	100	100							10			
		SW TO MED											10			
4D	44	SET AUTO BRAKE SEL	1	2.62	100	100							10			
		SW TO MAX											10			
4D	46	ACTUATE LANDING GEAR	1	2.16	100	100							10			CP
		WARNING HORN CUTOUT											10			
		SW											10			
4D	47	CHECK LANDING GEAR	1	.90	100								10			
		LEVER IN DOWN POS.											10			
4D	48	CHECK THAT ANTI-SKID	1	1.04	100								10			P
		CONT SW GUARDS ARE											10			
		DOWN											10			
4D	49	CHECK AUTO BRAKE SEL	1	1.08	100								10			P
		SW SET TO OFF											10			
4D	50	CHECK THAT PARKING	1	.97	100								10			P
		BRAKES ARE SET											10			
4D	51	SET PARKING BRAKE	1	2	100		100						10			
		LEVER TO OFF POS	2	3	100	100							10			
4D	52	RELEASE BRAKES	1	1.00					100	100			10			
4D	53	SET GEAR SEAL SW TO	1	2.48	100	100							10			CP
		OFF											10			
4D	54	SET GEAR SEAL SW TO	1	2.48	100	100							10			
		NORMAL											10			
4D	55	MON GEAR SEAL LT ON	1	1	100								10			
4D	56	MON GEAR SEAL LT OFF	1	.55	100								10			
4E	01	SET ALT FLAPS MASTER	1	2.01	100		100						10			P
		SW TO ARM	2	1.70	100		100						10			P
4E	02	SET ALT FLAPS MASTER	1	2.01	100		100						10			
		SW TO OFF	2	1.70	100		100						10			
4E	03	SET ALT FLAPS SW TO	1	2.01	100		100						10			
		UP	2	1.70	100		100						10			
4E	04	SET ALT FLAPS SW TO	1	2.01	100		100						10			
		OFF	2	1.70	100		100						10			
4E	05	SET ALT FLAPS SW TO	1	2.01	100		100						10			
		DOWN	2	1.70	100		100						10			
			3										10			
4E	06	SET FLAP CONT LEVER	1	1.98	50	100							10			C
		TO FLAPS 0	2	2.22	50	100							10			C
			3	2.69	50	100							10			CP
4E	07	SET FLAP CONT LEVER	1	2.69	20	100							10			CP
		TO FLAPS 1											10			
4E	08	SET FLAP CONT LEVER	1	2.02	50	100							10			C
		TO FLAPS 2	2	2.69	50	100							10			CP
4E	09	SET FLAP CONT LEVER	1	4	50	100							10			
		TO FLAPS 5	2	1.93	50	100							10			C
			3	2.69	50	100							10			CP

4E	10	SET FLAP CONT LEVER TO FLAPS 10	1	1.99		50	100			10	C
			2	2.89		50	100			10	CP
4E	11	SET FLAP CONT LEVER TO FLAPS 15	1	4		20	100			10	
			2	4.24		20	100			10	C
			3	2.46		20	100			10	C
			4	2.89		20	100			10	CP
4E	12	SET FLAP CONT LEVER TO FLAPS 25	1	2.90		50	100			10	CP
										10	
4E	13	SET FLAP CONT LEVER TO FLAPS 30	1	2.91		50	100			10	CP
										10	
4E	14	SET FLAP CONT LEVER TO FLAPS 40	1	2.92		20	100			10	CP
										10	
4E	15	MONITOR FLAP POSITION INDICATOR	1	2.02		50				10	C
			2	4		50				10	
			3	2.23		50				10	C
			4	.97		50				10	C
4E	16	CHECK FLAP LEVER AND POSITION INDIC AGREE	1	2.50		100				10	
										10	
4E	17	MON FLAP LEVER POS	1	1.24		50				10	P
4F	01	SET SPD BRAKE LEVER TO DOWN	1	2.61		10		100		10	P
			2	2.99		10		100		10	
			3	3.26		10		100		10	
			4	2.81		10		100		10	P
4F	02	SET SPEED BRAKE LEVER TO ARM	1	4		10		100		10	
			2	4		10	100			10	
			3	3.26		10		100		10	P
			4	2.81		10		100		10	
4F	03	SET SPEED BRAKE LEVER TO FLT DETENT	1	2.99		25		100		10	P
			2	2.61		25		100		10	
			3	3.26		25		100		10	
			4	2.81		25		100		10	
4F	04	SET SPEED BRAKE LEVER TO UP	1	2.61		25		100		10	
			2	2.99		25		100		10	
			3	3.26		25		100		10	
			4	2.81		25		100		10	
4F	05	MON SPD BRAKE DO NOT ARM LT ON	1	.73		100				10	
			2	.83		100				10	
			3	.35		100				10	P
4F	06	MON SPD BRAKE DO NOT ARM LT OFF	1	.73		100				10	
			2	.83		100				10	
			3	.35		100				10	
4F	07	MONITOR SPEED BRAKE LEVER ARMED LT GREEN	1	2		100				10	
			2	.73		100				10	P
			3	.83		100				10	CP
			4	.35		100				10	P
4F	08	MON SPD BRAKE LEVER ARMED LT OFF	1	.73		100				10	
			2	.83		100				10	
			3	.35		100				10	
4F	09	ACTUATE SPEED BRAKE 1 TEST SW	1	2.09		100		100		10	P
			2	1.35		100		100		10	P
4F	10	ACTUATE SPEED BRAKE 2 TEST SW	1	2.09		100		100		10	
			2	1.35		100		100		10	
			3	1.44		100		100		10	P
4F	11	ACTUATE SPEED BRAKE 3 TEST SW	1	2.09		100		100		10	
			2	1.35		100		100		10	
			3	1.47		100		100		10	P
4F	12	MON SPD BRK LEVER IN DOWN AND DETENT POS.	1	2.0		100				10	
										10	
4G	01	ADJUST AILERON TRIM WHEEL	1	4.04				100		10	

4G	02	ADJ STABILIZER TRIM WHEEL	1	2.56		50		100			10			P
			2	3.42		50	100				10			CP
			3	3.42		50		100			10			P
4G	03	MON STABILIZER TRIM INDIC	1	2.48		100					10			P
			2	.26		100					10			
			3	2.01		100					10			CP
4G	04	SET PILOT STAB TRIM SWITCHES	1	2.11					100		10			
											10			
4G	05	ALTUATE STABILIZER BRAKE RELEASE	1	3.16		100		100			10			P
											10			
4G	06	ACTUATE STABILIZER BY CWS									10			
											10			
4G	07	ADJUST RUDDER TRIM WHEEL	1	3.59				100			10			
											10			
4G	08	SET STAB TRIM MAIN ELEC CUTOUT SW TO NORMAL	1	2.22		100	100				10			CP
			2	2.22		100		100			10			
											10			
4G	09	SET STAB TRIM MAIN ELEC CUTOUT SW TO CUTOUT	1	2.22		100	100				10			
			2	2.22		50		100			10			
											10			
4G	10	SET STAB TRIM A/P CUTOUT SW TO NORM	1	2.22		100	100				10			
			2	1.25		100		100			10			
4G	11	SET STAB TRIM A/P CUTOUT SW TO CUTOUT	1	2.22		100	100				10			
											10			
4G	12	MONITOR TAKEOFF WARNING HORN									10	100		
											10			
4G	13	MON STAB TRIM LT ON	1	2.48		100					10			P
			2	2.13		100					10			CP
			3	.75		100					10			P
			4	.66		100					10			P
4G	14	MON STAB TRIM LT OFF	1	2.48		100					10			
			2	2.13		100					10			
			3	.75		100					10			
			4	.66		100					10			
4G	15	CHECK THAT STAB TRIM CUTOUT SW"S SET TO NORMAL	1	1.30		100					10			P
											10			
											10			
4G	16	OPEN MAN STAB TRIM HANDLE	1	5		20	100				10			
			2	5		20		100			10			
4G	17	STOW MANUAL STAB HANDLE	1	3.5		20	100				10			
			2	3.5		20		100			10			
4H	01	SET FFD CWS SW TO ENGAGED	1	2.05		100		100			10			
											10			
4H	02	SET FFD CWS SW TO DISENGAGED	1	2.05		100		100			10			
											10			
4H	03	MON FFD CWS SW SET TO ENGAGED	1	1.50		100					10			
											10			
4H	04	MON FFD CWS SW SET TO DISENGAGED	1	1.50		100					10			
											10			
4H	05	SET AUTOPILOT TO HYD SYS A	1	2.37		100		100			10			
											10			
4H	06	SET AUTOPILOT TO HYD SYS B	1	2.37		100		100			10			
											10			
4M	01	ACTUATE NOSE GEAR STEERING WHEEL	1	5.68			100				10			
			2	2.94			100				10			P
			3	150			100				10			
			4	10			100				10			
4M	02	ACTUATE NOSE GEAR STEERING USING RUDDER PEDALS	1	15					100		10			
			2	20						100	10			
			3	150					100	100	10			

			4	68				100	100	10	
4M	03	ACTUATE NOSE GEAR	1	45				100	100	10	
		STEERING USING	2	100				100	100	10	
		RUDDER PEDALS	3	90				100	100	10	
			4	10				100	100	10	
4M	04	ACTUATE NOSE GEAR	1	140				100	100	10	
		STEERING USING	2	35				100	100	10	
		RUDDER PEDALS	3	75				100	100	10	
			4	58				100	100	10	
4M	05	ACTUATE NOSE GEAR STEERING WHEEL	1	15		100				10	
										10	
4N	01	MONITOR LEADING EDGE	1	2	100					10	
		DEVICE POSITION	2	2.34	100					10	AC
		INDICATOR LTS	3	2.24	100					10	C
			4	2.81	100					10	C
4N	02	ACTUATE LEADING EDGE	1	2.05	100		100			10	P
		DEVICE ANNUN PNL	2	1.52	100		100			10	P
		TEST SW	3	1.82	100	100				10	AC
4N	03	MON LE FLAPS-IN-TRANSIT LT ON	1	.54	100					10	C
			2	1.17	100					10	C
4N	04	MON LE FLAPS-IN-TRANSIT LT OFF	1	.54	100					10	C
			2	1.17	100					10	
4N	05	MON LE FLAPS EXT LT ON	1	.54	100					10	C
			2	1.17	100					10	
4N	06	MON LE FLAPS EXT LT OFF	1	.54	100					10	C
			2	1.17	100					10	
5D	01	MONITOR ADF NO 1 FREQ INDIC	1	.77	90					10	P
			2	1.98	90					10	
			3	2.86	90					10	
5D	02	SELECT ADF NO 1 FREQ INDIC	1	2.86	10		100			10	P
			2	1.98	10		100			10	P7
			3	1.98	10	100				10	
5D	03	SET ADF NO 1 FUNC SEL SW TO OFF	1	1.85	100	100				10	C
			2	2.06	100		100			10	
			3	1.93	100		100			10	P
5D	04	SET ADF NO 1 FUNC SEL SW TO ANT	1	1.85	100	100				10	
			2	2.06	100		100			10	
			3	1.93	100		100			10	
5D	05	SET ADF NO 1 FUNC SEL SW TO ADF	1	1.85	100	100				10	
			2	2.06	100		100			10	
			3	1.93	100		100			10	
			4	2.20	100	100				10	
5D	06	ADJUST ADF NO 1 GAIN	1	1.93	100		100			10	P
5D	08	SET COMM 2 FILTER SEL SW TO VOICE	1	2.00	100		100			10	P
										10	
5D	09	SET COMM 2 FILTER SEL SW TO BOTH	1	2.00	100		100			10	
										10	
5D	10	SET COMM 2 FILTER SEL SW TO RANGE	1	2.00	100		100			10	
										10	
5D	11	MON ADF 1 AUDIO VIA LOUDSPEAKER								10	
										10	
5D	12	MON ADF 1 AUDIO VIA HEADSET								10	
										10	
5D	13	ACTUATE COMM 2 ADF-1 COMM RECVR SW	1	1.43	100		100			10	P
			2	2.46	100		100			10	P
			3	2.44	100	100				10	CP
5D	14	ADJUST ADF NO 1 COMM RECVR VOL	1	1.96	10		100			10	P
										10	
5D	15	SET ADF NO.1 FUNC SEL SW TO LOOP	1	1.85	100	100				10	C
			2	2.06	100		100			10	

			3	1.93	100		100		10	P
5D	16	SET ADF NO.1 BFO SW TO ON	1	1.42	100		100		10	P
									10	
5D	17	SET ADF NO.1 BFO SW TO OFF	1	1.42	100		100		10	
			2	2.75	100		100		10	
			3	3.00	100	100			10	
5D	18	ADJUST ADF NO.1 LOOP CONT	1	2.74	100		100		10	P
									10	
5D	19	SEL ADF NO.1 FREQ BAND .19-.40	1	2.13	100		100		10	P
			2	2.75	100		100		10	P
			3	3.00	100	100			10	
5D	20	SEL ADF NO.1 FREQ BAND .40-.84	1	2.13	100		100		10	
			2	2.75	100		100		10	
5D	21	SEL ADF NO.1 FREQ BAND .84-1.75	1	2.13	100		100		10	
			2	2.75	100		100		10	
5D	22	MON ADF NO.1 TUNING METER INDIC	1	.77	100				10	P
									10	
5D	23	MON ADF/RMI 1 INDIC FOR COMPASS HDG	1	2.23	100				10	P
			2						10	
5D	24	MON ADF/RMI 1 SYNC ANNUN	1	2.23	100				10	
			2	2.02	100				10	P
5D	25	ADJUST ADF/RMI 1 SYNC SEL	1	2.47	100	100			10	P
									10	
5D	26	MON ADF/RMI 1 COMPASS WARNING FLAG IN VIEW	1	2.23	100				10	
									10	
									10	
5D	27	MON ADF/RMI 1 COMPASS WARNING FLAG OUT OF VIEW	1	2.23	100				10	
									10	
									10	
5D	28	MON ADF POINTER NO.1 ON ADF/RMI 1 INDIC	1	2.23	100				10	
			2	2	10				10	
5D	29	MON ADF POINTER NO.2 ON ADF/RMI 1 INDIC	1	2.23	100				10	
			2	2	10				10	
5E	01	MON ADF NO 2 FREQ. INDIC	1	.77	100				10	CP
			2	1.98	100				10	
5E	02	SELECT ADF NO 2 FREQ	1	2.14		100			10	CP
			2	2.80		100			10	CP
			3	1.98		100			10	CP
5E	03	SET ADF NO 2 FUNC SEL SW TO OFF	1	1.94	100	100			10	CP
									10	
5E	04	SET ADF NO 2 FUNC SEL SW TO ANT	1	1.94	100	100			10	
									10	
5E	05	SET ADF NO 2 FUNC SEL SW TO ADF	1	1.94	100	100			10	
									10	
5E	06	ADJUST ADF NO 2 GAIN	1	1.94	100	100			10	
5E	07	SET COMM 2 FILTER SEL SW TO VOICE	1	2.09	100	100			10	CP
									10	
5E	08	SET COMM 2 FILTER SEL SW TO BOTH	1	2.09	100	100			10	
									10	
5E	09	SET COMM 2 FILTER SEL SW TO RANGE	1	2.09	100	100			10	
									10	
5E	10	MON ADF NO 2 AUDIO VIA LOUDSPEAKER							10	
									10	
5E	11	MON ADF NO 2 AUDIO VIA HEADSET							10	
									10	
5E	12	ACTUATE COMM 2 ADF-2 COMM RECVR SW	1	1.51	100	100			10	
			2	2.48	100		100		10	P
5E	13	SET ADF NO.2 FUNC SEL SW TO LOOP	1	1.94	100	100			10	
									10	
5E	14	SET ADF NO.2 BFO SW	1	1.42	100	100			10	CP

		TO ON								10	
5E	15	SET ADF NO.2 BFO SW TO OFF	1	1.42	100	100				10	
5E	16	ADJUST ADF NO.2 LOOP CONT	1	2.85	100	100				10	CP
5E	17	SEL ADF NO.2 FREQ BAND .19-.40	1	2.80	20	100				10	CP
			2	2.69	20	100				10	CP
5E	18	SEL ADF NO.2 FREQ BAND .40-.84	1	2.80	20	100				10	
			2	2.69	20	100				10	
5E	19	SEL ADF NO.2 FREQ BAND .84-1.75	1	2.80	20	100				10	
			2	2.69	20	100				10	
5E	20	MON ADF NO.2 TUNING METER INDIC	1	2.26	100					10	CP
5E	21	MON ADF/RMI 2 INDIC FOR COMPASS HDG	1	2.26	100					10	
5E	22	MON ADF/RMI 2 SYNC ANNUN	1	2.26	100					10	
5E	23	ADJUST ADF/RMI 2 SYNC SEL	1	2.68	100	100				10	CP
5E	24	MON ADF/RMI 2 COMPASS FLAG IN VIEW	1	2.26	100					10	
5E	25	MON ADF/RMI 2 COMPASS FLAG OUT OF VIEW	1	2.26	100					10	
5E	26	MON ADF NO.1 POINTER ON ADF/RMI 2 INDIC	1	2.26	100					10	
			2	2	10					10	
5E	27	MON ADF NO.2 POINTER ON ADF/RMI 2 INDIC	1	2.26	100					10	
			2	2	10					10	
5G	01	SET VOR/RMI COMPASS SEL SW TO NO.2 NORM	1	2.15	100	100				10	P
5G	02	SET VOR/RMI COMPASS SEL SW TO NO.1	1	2.15	100	100				10	
5G	03	MON COMPASS HDG ON VOR/RMI 1 INDIC	1	2.25	100					10	P
5G	04	MON VOR POINTER NO.1 ON VOR/RMI 1 INDIC	1	2.25	100					10	
			2	2	10					10	
5G	05	MON VOR POINTER NO.2 ON VOR/RMI 1 INDIC	1	2.25	50					10	
			2	2	10					10	
5G	06	SET COMPASS SEL SW TO NO.1	1	1.46	50	100				10	P
5G	07	SET COMPASS SEL SW TO NO.2	1	1.46	100	100				10	
5H	01	MON COMPASS HDG ON VOR/RMI 2 INDIC	1	2.27	100					10	CP
			2	2.03	100					10	CP
5H	02	MON VOR POINTER NO.1 ON VOR/RMI 2 INDIC	1	2.27	100					10	
			2	2.03	100					10	
			3	2	10					10	
5H	03	MON VOR POINTER NO.2 ON VOR/RMI 2 INDIC	1	2.27	100					10	
			2	2.03	100					10	
			3	2	10					10	
5K	01	FOLD MAG COMPASS INTO VIEW	1	3.50	100		100			10	
5K	02	MON MAG COMPASS HEADING INDIC	1	1.50	100					10	
5K	03	FOLD MAG COMPASS OUT OF VIEW	1	3.50	100		100			10	
			2	1.75	100		100			10	
5P	01	MONITOR RANGE INDIC ON DME RNG NO 1	1	1.04	100					10	CP
			2	.96	100					10	
			3	1.16	100					10	
			4	.80	100					10	

SQ	01	MON RANGE INDIC ON DME RNG NO 2	1	1.03	100			10		CP
			2	.96	100			10		
			3	1.16	100			10		CP
			4	.80	100			10		P
SU	01	MON NAV-1 FREQ INDIC	1	.76	100			10		
			2	4.97	90			10		
			3	5.08	90			10		
SU	02	SET NAV-1 FREQ - WHOLE NO.S	1	2.89	10		100	10		
			2	2.88	10		100	10		
			3	3.00	10	100		10		CP
			4	2.88	10	100		10		
SU	03	SET NAV-1 FREQ - FRACTIONS	1	2.88	10		100	10		
			2	2.88	10	100		10		CP
SU	04	ADJUST NAV-1 VOLUME	1	2.88	10		100	10		
			2	2.20	10	100		10		
SU	05	ACT NAV-1 UP/LT TEST SW	1	2.24	10		100	10		P
								10		
SU	06	ACT NAV-1 DN/RT TEST SW	1	1.97	10		100	10		P
								10		
SU	07	ACT NAV-1 VOR TEST SW	1	2.26	10		100	10		P
			2	2.35	10	100		10		CP
SU	08	ACT NAV-1 DME TEST SW	1	1.97	10	100		10		CP
			2	2.34	10	100		10		CP
			3	2.20	10		100	10		P
SU	09	SET COMM 2 FILTER SEL SW TO VOICE	1	2.00	100		100	10		P
								10		
SU	10	SET COMM 2 FILTER SEL SW TO BOTH	1	2.00	100		100	10		
								10		
SU	11	SET COMM 2 FILTER SEL SW TO RANGE	1	2.00	100		100	10		
			2	2.00	100	100		10		
SU	12	SET COMM 2 NAV-1 NAV RCVR SW TO ON	1	2.46	100		100	10		
			2	2.44	100		100	10		
			3	1.39	100	100		10		
			4	2.26	100	100		10		
SU	13	SET COMM 2 NAV-1 NAV RCVR SW TO OFF	1	2.46	100		100	10		
			2	2.44	100		100	10		
			3	1.39	100	100		10		
			4	2.26	100	100		10		
SU	14	MON NAV-1 AUDIO						10		
SV	01	MON NAV-2 FREQ INDIC	1	.76	100			10		
			2	4.71	90			10		
			3	4.91	90			10		
SV	02	SET NAV-2 FREQ - WHOLE NO.S	1	2.73	10	100		10		C
			2	2.93	10	100		10		CP
			3	2.97	10		100	10		P
SV	03	SET NAV-2 FREQ - FRACTIONS	1	1.98	10	100		10		CP
			2	1.98	10		100	10		
			3	2.10	10		100	10		P
SV	04	ADJUST NAV-2 VOLUME	1	2.18	10	100		10		C
			2	2.93	10	100		10		CP
SV	05	ACT NAV-2 UP/LT TEST SW	1	1.79	10	100		10		CP
								10		
SV	06	ACT NAV-2 DN/RT TEST SW	1	1.97	10	100		10		CP
								10		
SV	07	ACT NAV-2 VOR TEST SW	1	2.28	10	100		10		CP
			2	2.34	10		100	10		P
SV	08	ACT NAV-2 DME TEST SW	1	1.84	10	100		10		CP
								10		
SV	09	SET COMM 2 FILTER SEL SW TO VOICE	1	2.09	100	100		10		CP
			2	2.00	100		100	10		P

			3	2.83	100	100		10		CP
5V	10	SET COMM 2 FILTER	1	2.09	100	100		10		
		SEL SW TO BOTH	2	2.00	100		100	10		
			3	2.83	100	100		10		
5V	11	SET COMM 2 FILTER	1	2.09	100	100		10		
		SEL SW TO RANGE	2	2.00	100		100	10		
			3	2.83	100	100		10		
5V	12	SET COMM 2 NAV-2 NAV	1	2.40	100	100		10		CP
		RECVR SW TO ON	2	1.40	100	100		10		
			3	2.49	100		100	10		P
			4	1.39	100		100	10		
5V	13	SET COMM 2 NAV-2 NAV	1	2.40	100	100		10		
		RECVR SW TO OFF	2	1.40	100	100		10		
			3	2.49	100		100	10		
			4	1.39	100		100	10		
5V	14	MON NAV-2 AUDIO						10		
5W	01	MON NAV-1 FREQ INDIC	1	.76	100			10		AP
			2	4.49	100			10		
			3	3.95	100			10		
5W	02	SET NAV-1 FREQ -	1	2.91			100	10		A
		WHOLE NO.S	2	2.37		100		10		AC
5W	03	SET NAV-1 FREQ -	1	1.58			100	10		
		FRACTIONS	2	1.58		100		10		
5W	04	ADJ NAV-1 VOLUME	1	1.58	10		100	10		
			2	2.91	10		100	10		
			3	1.58	10	100		10		
			4	2.91	10	100		10		
5W	05	SET COMM 1 NAV-1 NAV	1	2.28	100		100	10		A
		RECVR SW TO ON	2	2.40	100	100		10		AC
5W	06	SET COMM 1 NAV-1 NAV	1	2.28	100		100	10		
		RECVR SW TO OFF	2	2.40	100	100		10		
5X	01	MON NAV-2 FREQ INDIC	1	.76	100			10		A
			2	4.57	100			10		
			3	4.53	100			10		
5X	02	SET NAV-2 FREQ -	1	2.89	10		100	10		A
		WHOLE NO.S	2	2.95		100		10		AC
5X	03	SET NAV-2 FREQ -	1	1.58	10		100	10		
		FRACTIONS	2	1.58		100		10		
5X	04	ADJ NAV-2 VOLUME	1	1.58	10		100	10		
			2	2.99	10		100	10		
5X	05	SET COMM 2 NAV-2 NAV	1	2.39	100		100	10		A
		RECVR SW TO ON	2	2.28	100	100		10		AC
5X	06	SET COMM 2 NAV-2 NAV	1	2.39	100		100	10		
		RECVR SW TO OFF	2	2.28	100	100		10		
5Y	01	MON NAV-3 FREQ INDIC	1	.76	100			10		A
			2	4.65	100			10		
			3	4.70	100			10		
5Y	02	SET NAV-3 FREQ-	1	3.07	10		100	10		A
		WHOLE NO.S	2	3.12		100		10		
5Y	03	SET NAV-3 FREQ-	1	1.58	10		100	10		
		FRACTIONS	2	1.58	10	100		10		5Y
5Y	04	ADJ NAV-3 VOLUME	1	3.07	10		100	10		
			2	3.12	10	100		10		
5Y	05	SET COMM 3 NAV-3 NAV	1	2.50	100	100		10		AC
		RECVR SW TO ON						10		
5Y	06	SET COMM 3 NAV-3 NAV	1	2.50	100	100		10		
		RECVR SW TO OFF						10		
6A	01	MON WEATHER RADAR	1	4.11	100			10		
		VIDEO	2	2.39	100			10		P
			3	2.00	100			10		P

6A	02	SEL 30-10 PPI SCALE	1	2.66	80		100		10	
			2	2.18	80		100		10	P
			3	2.66	80	100			10	
6A	03	SEL 80-20 PPI SCALE	1	2.66	80		100		10	
			2	2.18	80		100		10	
6A	04	SEL 180-30 PPI SCALE	1	2.66	80		100		10	
			2	2.18	80		100		10	
6A	05	ADJUST PPI TRACE CON	1	2.21	80		100		10	P
6A	06	ADJUST PPI ERASE RATE CONT	1	2.28	80		100		10	P
									10	
6A	07	ADJUST PPI DIMMER	1	2.19	80		100		10	
			2	2.14	80		100		10	P
6A	08	ADJUST PPI POLARIZATION CONT							10	
									10	
6A	09	SET W/R FUNC SEL SW TO OFF	1	2.37	100	100			10	CP
			2	2.38	100		100		10	P
6A	10	SET W/R FUNC SEL SW TO STBY	1	2.37	100	100			10	
			2	2.38	100		100		10	
6A	11	SET W/R FUNC SEL SW TO NORM	1	2.37	100	100			10	
			2	2.38	100		100		10	
6A	12	SET W/R FUNC SEL SW TO CTR	1	2.37	100	100			10	
			2	2.38	100		100		10	
6A	13	SET W/R FUNC SEL SW TO MAP	1	2.37	100	100			10	
			2	2.38	100		100		10	
6A	14	SET W/R FUNC SEL SW TO TEST	1	2.37	100	100			10	
			2	2.38	100		100		10	
6A	15	ADJUST W/R GAIN CONT	1	2.17	80		100		10	
			2	2.12	80		100		10	P
6A	16	ADJUST W/R ANT TILT CONT	1	2.17	80		100		10	
			2	2.02	80		100		10	P
6A	17	CHECK W/R OFF	1	2.17	100				10	
7A	01	SET HYD PUMP A NO 1 ENG SW TO ON	1	2.75	100		100		10	
			2	1.46	100	100			10	
			3	2.55	100	100			10	CP
			4	1.46	100		100		10	
7A	02	SET HYD PUMP A NO 1 ENG SW TO OFF	1	1.95	100	100			10	
			2	1.46	100	100			10	
			3	1.46	100		100		10	
			4	2.75	100		100		10	
7A	03	SET HYD PUMP A NO 2 ENG SW TO ON	1	1.95	100	100			10	
			2	1.46	100	100			10	
7A	04	SET HYD PUMP A NO 2 ENG SW TO OFF	1	1.95	100	100			10	
			2	1.46	100	100			10	
			3	1.46	100		100		10	
7A	05	SET HYD PUMP B NO 1 ENG SW TO ON	1	1.95	100	100			10	
			2	1.46	100	100			10	
			3	1.46	100		100		10	
7A	06	SET HYD PUMP B NO 1 ENG SW TO OFF	1	1.95	100	100			10	CP
			2	1.46	100	100			10	
			3	1.46	100		100		10	
7A	07	SET HYD PUMP B NO 2 ENG SW TO ON	1	1.95	100	100			10	
			2	1.46	100	100			10	
			3	1.46	100		100		10	
7A	08	SET HYD PUMP B NO 2 ENG SW TO OFF	1	1.46	100	100			10	CP
			2	1.95	100	100			10	
			3	1.46	100		100		10	
7A	09	MON HYD SYS A NO 1 PUMP LO PRESS LT ON	1	.55	100				10	
									10	
7A	10	MON HYD SYS A NO P PUMP LO PRESS LT OFF	1	.55	100				10	
									10	

7A	11	MON HYD SYS B NO 1 PUMP LO PRESS LT ON	1	.55	100			10 10		CP
7A	12	MON HYD SYS B NO 1 PUMP LO PRESS LT OFF	1	.55	100			10 10		
7A	13	MON HYD SYS B NO 2 PUMP LO PRESS LT ON	1	.55	100			10 10		CP
7A	14	MON HYD SYS B NO 2 PUMP LO PRESS LT OFF	1	.55	100			10 10		
7A	15	MON HYD SYS B NO 1 PUMP OVRHT LT ON	1	.55	100			10 10		
7A	16	MON HYD SYS B NO 1 PUMP OVRHT LT OFF	1	.55	100			10 10		
7A	17	MON HYD SYS B NO 2 PUMP OVRHT LT ON	1	.55	100			10 10		
7A	18	MON HYD SYS B NO 2 PUMP OVRHT LT OFF	1	.55	100			10 10		
7A	19	MON HYD BRAKE PRESS INDIC	1	2.24	100			10		C
			2	2.07	100			10		CP
7A	20	MON HYD PRESS INDIC	1	2.03	100			10		CP
			2	2.24	100			10		
7A	21	MON HYD SYS A QTY INDIC	1	2.02	100			10		CP
			2	2.24	100			10		
7A	22	MON HYD SYS B LO QTY LT ON	1	.54	100			10		CP
			2	1.27	100			10		CP
7A	23	MON HYD SYS B LO QTY LT OFF	1	.54	100			10		
			2	1.27	100			10		
7A	24	MON MASTER CAUT AND HYDRAULIC ANNUN LTS ON	1	.53	100			10 10 10		
7A	25	ACTUATE MASTER CAUT RESET SW	1	2.14	100	100		10		
			2	2.14	100		100	10		
7A	26	MON HYD ANNUN LT ON	1	.53	100			10		CP
7A	27	MON HYD ANNUN LT OFF	1	.53	100			10		
7A	28	ACTUATE ANNUN PNL RECALL SW	1	2.28	10	100		10		
			2	1.93	10	100		10		7A
7A	29	CHECK SYS B HYD PUMP SWDS OFF	1	.90	100			10		
			2	1.52	100			10		P
7A	30	CHECK ENG NO.1 SYS A HYD PUMP SW SET TO ON	1	1.36	100			10 10 10		P
7A	31	CHECK ENG NO.2 SYS A HYD PUMP SW SET TO ON	1	.75	100			10 10 10		P
7A	32	MON HYD SYS SWDS	1	2.00	100			10		
7A	33	MON MASTER CAUTION AND ALL ANNUN PNL LTS ILLUMINATED	1	.70	100			10		
			2	.54	100			10 10		
7A	34	SET GROUND INTER-CONNECT SW TO OPEN	1	1.48	100	100		10		CP
			2	2.58	100		100	10		P
7A	35	SET GROUND INTER-CONNECT SW TO CLOSED	1	1.48	100	100		10		
			2	2.58	100		100	10		
7A	36	MON ALL ANNUN LTS	1	.53	100			10		
7A	37	MON OVHD PNL LTS	1	2.2	100			10		
7A	38	MON HYD SYS A NO 2 PUMP LO PRESS LT ON	1	.55	100			10 10		
7A	39	MON HYD SYS A NO 2 PUMP LO PRESS LT ON	1	.55	100			10 10		
7B	03	MON NO 1 GEN DR LOW OIL PRESS LT ON	1	1.02	100			10 10		P
7B	04	MON NO 1 GEN DR LOW	1	1.02	100			10		

		OIL PRESS LT OFF							10	
7B	05	MON NO 1 GEN DR HIGH	1	1.02	100				10	
		OIL TEMP LT ON							10	
7B	06	MON NO 1 GEN DR HIGH	1	1.02	100				10	
		OIL TEMP LT OFF							10	
7B	07	ACTUATE NO 1 GEN DR	1	1.72	100		100		10	P
		DISCONNECT SW	2	1.96	100		100		10	P
7B	08	MON NO 1 GEN DR OIL	1	2.08	100				10	P
		TEMP INDIC							10	
7B	09	MON NO 2 GEN DR LOW	1	1.02	100				10	
		OIL PRESS LT ON	2	1	50				10	
7B	10	MON NO 2 GEN DR LOW	1	1.02	100				10	
		OIL PRESS LT OFF	2	1	50				10	
7B	11	MON NO 2 GEN DR HIGH	1	1.02	100				10	
		OIL TEMP LT ON	2	1	50				10	
7B	12	MON NO 2 GEN OR HIGH	1	1.02	100				10	
		OIL TEMP LT OFF	2	1	50				10	
7B	13	ACTUATE NO 2 GEN DR	1	1.72	100		100		10	
		DISCONNECT SW	2	1.96	100		100		10	
7B	14	MON NO 2 GEN DR OIL	1	2.08	100				10	
		TEMP INDIC							10	
7B	15	SET STDBY PWR SW TO	1	2.94	100		100		10	P
		BAT	2	1.96	100		100		10	
7B	16	SET STDBY PWR SW TO	1	2.94	100		100		10	
		OFF							10	
7B	17	SET STDBY PWR SW TO	1	2.94	100		100		10	
		AUTO	2	1.96	100		100		10	
7B	18	MON STDBY PWR OFF	1	1.17	100				10	P
		LT ON	2	.89	100				10	P
7B	19	NON STDBY POWER OFF	1	1.17	100				10	P
		LT OFF	2	.89	100				10	
7B	20	SET GEN DR TEMP SW	1	2.61	100		100		10	P
		TO RISE							10	
7B	21	SET GEN DR TEMP SW	1	2.61	100		100		10	
		TO IN							10	
7B	22	SET BUS TX SW TO OFF	1	2.81	100		100		10	P
7B	23	SET BUS TX SW TO	1	2.81	100		100		10	
		AUTO							10	
7B	24	MON APU GEN OFF BUS	1	.63	100				10	P
		LT ON	2	.92	100				10	P
7B	25	MON APU GEN OFF BUS	1	.63	100				10	P
		LT OFF	2	.92	100				10	
7B	26	MON GEN NO 1 TRANS-	1	.59	70				10	P
		FER BUS OFF LT ON	2	.92	70				10	
7B	27	MON GEN NO 1 TRANS-	1	.59	70				10	P
		FER BUS OFF LT OFF	2	.92	70				10	
7B	28	MON GEN NO.1 BUS OFF	1	.59	100				10	
		LT ON	2	.92	100				10	
7B	29	MON BEN NO.1 BUS OFF	1	.59	100				10	
		LT OFF	2	.92	100				10	
7B	30	MON GEN NO.1 GEN OFF	1	.59	100				10	
		BUS LT ON	2	.92	100				10	
7B	31	MON GEN NO.1 GEN OFF	1	.59	100				10	
		BUS LT OFF	2	.92	100				10	
7B	32	SET GEN NO.1 SW TO	1	1.72	100		100		10	P
		ON							10	
7B	33	SET GEN NO.1 SW TO	1	1.72	100		100		10	
		OFF	2	1.72	100	100			10	7B
7B	34	SET APU GEN NO.1 SW	1	1.98	100		100		10	P
		TO ON	2	1.50	100		100		10	P

			3	1.75	100		100	10	P
			4	1.75	100	100		10	
7B	35	SET APU GEN NO.1 SW	1	1.98	100		100	10	P
		TO OFF	2	1.50	100		100	10	P
			3	1.75	100		100	10	
7B	36	MON GEN NO.2 TRANS	1	.59	100			10	P
		FER BUS OFF LT ON	2	.92	100			10	
7B	37	MON GEN NO.2 TRANS-	1	.59	100			10	
		FER BUS OFF LT OFF	2	.92	100			10	
7B	38	MON GEN NO.2 BUS OFF	1	.59	100			10	
		LT ON	2	.92	100			10	
7B	39	MON GEN NO.2 BUS OFF	1	.59	100			10	
		LT OFF	2	.92	100			10	
7B	40	MON GEN NO.2 GEN OFF	1	.59	100			10	
		BUS LT ON	2	.92	100			10	
7B	41	MON GEN NO.2 GEN OFF	1	.59	100			10	
		BUSS LT OFF						10	
7B	42	SET GEN NO.2 SW TO	1	1.72	100		100	10	
		ON						10	
7B	43	SET GEN NO.2 SW TO	1	1.72	100		100	10	
		OFF						10	
7B	44	SET APU GEN NO.2 SW	1	1.98	100		100	10	P
		TO ON	2	1.50	100		100	10	P
7B	45	SET APU GEN NO.2 SW	1	1.98	100		100	10	
		TO OFF	2	1.50	100		100	10	
7B	46	SET GRD PWR SW TO ON	1	2.44	100		100	10	P
7B	47	SET GRD PWR SW TO	1	2.44	100		100	10	
		OFF						10	
7B	48	MON GRD PWR AVAIL	1	1.02	100			10	
		LT ON						10	
7B	49	MON GRD PWR AVAIL	1	1.02	100			10	
		LT OFF						10	
7B	50	MON NO.1 GEN AC AMPS	1	2.16	100			10	P
		INDIC						10	
7B	51	MON NO.2 GEN AC AMPS	1	2.16	100			10	
		INDIC						10	
7B	52	MON DC AMPS INDIC	1	2.04	100			10	
			2	1	100			10	
7B	53	MON DC VOLTS INDIC	1	2.06	100			10	
7B	54	SET BATTERY SW TO ON	1	2.06	100		100	10	
			2	3.30	100		100	10	
7B	55	SET BATTERY SW TO	1	2.06	100		100	10	
		OFF	2	3.30	100		100	10	
			3	3.30	100	100		10	
7B	56	SET DC METER SEL SW	1	3.36	100		100	10	
		TO STDBY PWR	2	2.18	100		100	10	
7B	57	SET DC METER SEL SW	1	3.36	100		100	10	
		TO BATT	2	2.18	100		100	10	
7B	58	SET DC METER SEL SW	1	3.36	100		100	10	
		TO TR 1	2	2.18	100		100	10	
7B	59	SET DC METER SEL SW	1	3.36	100		100	10	
		TO TR 2	2	2.18	100		100	10	
7B	60	SET DC METER SEL SW	1	3.36	100		100	10	
		TO TR 3	2	2.18	100		100	10	
7B	61	SET DC METER SEL SW	1	3.36	100		100	10	
		TO TEST	2	2.18	100		100	10	
7B	62	MON AC FREQ INDIC	1	2.04	100			10	P
7B	63	MON AC VOLTS INDIC	1	2.06	100			10	P
			2	1	100			10	
7B	64	SET AC METER SEL SW	1	3.36	100		100	10	P

		TO STDBY PWR	2	2.18	100		100		10	P
7B	65	SET AC METER SEL SW	1	3.36	100		100		10	
		TO GND PWR	2	2.18	100		100		10	
7B	66	SET AC METER SEL SW	1	3.36	100		100		10	
		TO GEN 1	2	2.18	100		100		10	
7B	67	SET AC METER SEL SW	1	3.36	100		100		10	
		TO APU GEN	2	2.18	100		100		10	
7B	68	SET AC METER SEL SW	1	3.36	100		100		10	
		TO GEN 2	2	2.18	100		100		10	
7B	69	SET AC METER SEL SW	1	3.36	100		100		10	
		TO TEST	2	2.18	100		100		10	
7B	70	SET GALLEY PWR SW	1	.56	100		100		10	P
		TO ON	2	1.80	100		100		10	P
7B	71	SET GALLEY PWR SW	1	.56	100		100		10	
		TO OFF	2	1.00	100		100		10	
			3	1.80	100	100			10	
7B	72	ACTUATE RESIDUAL	1	2.57	100		100		10	P
		VOLTS SW	2	2.06	90		100		10	
7B	73	MON MASTER CAUTION	1	.73	100				10	P
		AND ELEC ANNUN LTS							10	
		ON							10	
7B	74	ACTUATE MASTER CAUT	1	2.13	100		100		10	P
		RESET SW	2	2.49	100		100		10	P
7B	75	MON ELEC ANNUN LT ON	1	.54	100				10	P
7B	76	MON ELEC ANNUN LT	1	.54	100				10	
		OFF							10	
7B	77	ACTUATE ANNUN PNL	1	2.13	100				10	
		RECALL SW	2	2.49	100				10	
7B	75	SET EQUIP COOLING SW	1	1.65	100		100		10	P
		TO NORMAL							10	
7B	79	SET EQUIP COOLING SW	1	1.65	100		100		10	
		TO ALTERNATE							10	
7B	80	MON EQUIP COOLING	1	1.04	100				10	P
		OFF LT ON	2	1.13	100				10	P
7B	81	MON EQUIP COOLING	1	1.04	100				10	
		OFF LT OFF	2	1.13	100				10	
7B	82	MON OVHD ANNUN LT ON	1	.54	100				10	
7B	83	MON OVHD ANNUN LT	1	.54	100				10	
		OFF							10	
7B	84	CHECK BATT SW ON	1	.90	100				10	
7B	85	CHECK CB35 ON P-6	1	4.00	100				10	
		PNL							10	
7B	86	CHECK MASTER ELEC SW	1	4.00	100				10	
		ON P-6 PNL	2	2.00	100				10	
7B	87	CHECK CB35 ON P-18	1	4.00	100				10	
		PNL							10	
7B	88	CHECK ENG NO.1 GEN	1	1.33	100				10	P
		DR DISCON SW							10	
		SAFETIED							10	
7B	89	CHECK ENG NO.2 GEN	1	.80	100				10	P
		DR DISCON SW							10	
		SAFETIED							10	
7B	90	CHECK THAT CSD DRIVE	1	1.39	100				10	P
		TEMP SW SET TO IN							10	
7B	91	CHECK THAT BUS TX SW	1	1.23	100				10	P
		IS SET TO AUTO							10	
7B	92	CHECK THAT EQUIP	1	1.35	100				10	P
		COOLING SW IS SET TO							10	
		NORMAL							10	
7B	93	MON GALLEY POWER SW	1	1.41	100				10	P

		SET TO ON							10	
7B	94	MON GALLEY POWER SW	1	1.41	100				10	
		SET TO OFF							10	
7C	01	MON V-REF INDIC	1	2.3	100				10	
7C	02	SET ZERO FUEL WT SEL	1	4	20		80		10	
7C	03	MON ZERO FUEL WT	1	4	80				10	
7C	07	SET LANDING FLAP SEL	1	1.8	100		100		10	
7C	09	MON TANK NO 1 FUEL	1	2.02	100				10	P
		QTY INDIC	2	2.27	100				10	P
			3	3	30				10	
7C	10	MON TANK NO.2 FUEL	1	2.02	100				10	P
		QTY INDIC	2	2.27	100				10	P
			3	3	30				10	
7C	11	MON CTR TANK FUEL	1	2.10	100				10	P
		QTY INDIC	2	2.46	100				10	P
			3	3	30				10	
7C	12	MON FUEL TEMP INDIC	1	2.05	100				10	P
7C	13	MON CROSSFEED VALVE	1	.55	100				10	P
		OPEN LT OFF							10	
7C	14	MON CROSSFEED VALVE	1	.55	100				10	
		OPEN LT ON BRIGHT							10	
7C	15	MON CROSSFEED VALVE	1	.55	100				10	
		OPEN LT ON DIM							10	
7C	16	SET CROSSFEED SEL	1	2.79	100		100		10	P
		SW TO OPEN	2	2.02	100		100		10	P
7C	17	SET CROSSFEED SEL	1	2.79	100		100		10	
		SW TO CLOSED	2	2.02	100		100		10	
7C	18	SET ENG NO 1 FUEL HT	1	1.99	100		100		10	P
		SW TO ON							10	
7C	19	SET ENG NO.1 FUEL HT	1	1.99	100		100		10	
		SW TO OFF							10	
7C	20	MON CTR TANK LEFT	1	.89	100				10	
		FUEL PUMP LO PRESS	2	.55	100				10	
		LT ON							10	
7C	21	MON CTR TANK LEFT	1	.89	100				10	P
		FUEL PUMP LO PRESS	2	.55	100				10	P
		LT OFF							10	
7C	22	MON CTR TANK RIGHT	1	.55	100				10	
		FUEL PUMP LO PRESS	2	.89	100				10	
		LT ON							10	
7C	23	MON CTR TANK RIGHT	1	.55	100				10	
		FUEL PUMP LO PRESS	2	.89	100				10	
		LT OFF							10	
7C	24	SET CTR TANK LEFT	1	1.45	100		100		10	P
		FUEL PUMP SW TO ON	2	2.35	100		100		10	P
7C	25	SET CTR TANK LEFT	1	1.45	100		100		10	
		FUEL PUMP SW TO OFF	2	2.35	100		100		10	
			3	2.35	100	100			10	
			4	1.45	100	100			10	
7C	26	SET CTR TANK RIGHT	1	1.45	100		100		10	
		FUEL PUMP SW TO ON	2	2.35	100		100		10	
7C	27	SET CTR TANK RIGHT	1	1.45	100		100		10	
		FUEL PUMP SW TO OFF	2	2.35	100		100		10	
			3	1.45	100	100			10	
7C	28	MON TANK NO.1 AFT	1	.58	100				10	P
		FUEL PUMP LO PRESS	2	.95	100				10	
		LT ON							10	
7C	29	MON TANK NO.1 AFT	1	.58	100				10	
		FUEL PUMP LO PRESS	2	.95	100				10	
		LT OFF							10	

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7C	30	SET TANK NO.1 AFT	1	1.97	100		100		10	
		FUEL PUMP SW TO ON	2	1.59	100		100		10	
			3	2.35	100		100		10	7C
7C	31	SET TANK NO.1 AFT	1	1.97	100		100		10	P
		FUEL PUMP SW TO OFF	2	1.59	100		100		10	P
			3	2.35	100	100			10	7C
			4	1.59	100		100		10	
7C	32	MON TANK NO.1 FWD	1	.55	100				10	P
		FUEL PUMP LOW PRESS LT ON	2	.95	100				10	
									10	
7C	33	MON TANK NO.1 FWD	1	.55	100				10	
		FUEL PUMP LOW PRESS LT OFF	2	.75	100				10	
									10	
7C	34	SET TANK NO.1 FWD	1	1.46	100		100		10	
		FUEL PUMP SW TO ON	2	1.39	100		100		10	
7C	35	SET TANK NO.1 FWD	1	1.46	100		100		10	P
		FUEL PUMP SW TO OFF	2	1.39	100		100		10	P
			3	1.39	100		100		10	
			4	1.39	100	100			10	7C
7C	36	MON TANK NO.2 FWD	1	.54	100				10	P
		FUEL PUMP LOW PRESS LT ON	2	.98	100				10	
									10	
7C	37	MON TANK NO.2 FWD	1	.55	100				10	
		FUEL PUMP LOW PRESS LT OFF	2	.95	100				10	
									10	
7C	38	SET TANK NO.2 FWD	1	1.45	100		100		10	
		FUEL PUMP SW TO ON							10	
7C	39	SET TANK NO.2 FWD	1	1.45	100		100		10	P
		FUEL PUMP SW TO OFF	2	1.45	100		100		10	
7C	40	MON TANK NO.2 AFT	1	.58	100				10	P
		FUEL PUMP LOW PRESS LT ON	2	.95	100				10	
									10	
7C	41	MON TANK NO.2 AFT	1	.55	100				10	
		FUEL PUMP LOW PRESS LT OFF	2	.95	100				10	
									10	
7C	42	SET TANK NO.2 AFT	1	1.56	100		100		10	
		FUEL PUMP SW TO ON	2	1.45	100		100		10	
7C	43	SET TANK NO.2 AFT	1	1.56	100		100		10	P
		FUEL PUMP SW TO OFF	2	1.56	100		100		10	
7C	44	MON ENG NO.1 FUEL	1	.55	100				10	
		VALVE CLOSED LT OFF	2	.95	100				10	
7C	45	MON ENG NO.1 FUEL	1	.55	100				10	
		VALVE CLOSED LT ON BRIGHT	2	.95	100				10	
									10	
7C	46	MON ENG NO.1 FUEL	1	.55	100				10	
		VALVE CLOSED LT ON DIM	2	.95	100				10	
									10	
7C	47	MON ENG NO.1 FILTER	1	.95	100				10	P
		ICING LT ON	2	.55	100				10	
7C	48	MON ENG NO.1 FILTER	1	.95	100				10	
		ICING LT OFF	2	.55	100				10	
7C	49	MON ENG NO.1 VALVE	1	.55	100				10	P
		OPEN LT OFF	2	.95	100				10	
7C	50	MON ENG NO.1 VALVE	1	.55	100				10	
		OPEN LT ON BRIGHT	2	.95	100				10	
7C	51	MON ENG NO.1 VALVE	1	.55	100				10	
		OPEN LT ON DIM	2	.95	100				10	
7C	52	MON ENG NO.2 FUEL	1	.55	100				10	
		VALVE CLOSED LT OFF	2	.95	100				10	
7C	53	MON ENG NO.2 FUEL	1	.55	100				10	

		VALVE CLOSED LT ON	2	.95	100			10		
		BRIGHT						10		
7C	54	MON ENG NO.2 FUEL	1	.55	100			10		
		VALVE CLOSED LT ON	2	.95	100			10		
		DIM						10		
7C	55	MON ENG NO.2 FILTER	1	.55	100			10		
		ICING LT ON	2	.95	100			10		
7C	56	MON ENG NO.2 FILTER	1	.55	100			10		
		ICING LT OFF	2	.95	100			10		
7C	57	MON ENG NO.2 VALVE	1	.55	100			10		
		OPEN LT OFF	2	.95	100			10		
7C	58	MON ENG NO.2 VALVE	1	.55	100			10		
		OPEN LT ON BRIGHT	2	.95	100			10		
7C	59	MON ENG NO.2 VALVE	1	.55	100			10		
		OPEN LT ON DIM	2	.95	100			10		
7C	60	SET ENG NO.2 FUEL	1	1.62	100		100	10		P
		HT SW TO ON						10		
7C	61	SET ENG NO.2 FUEL	1	1.62	100		100	10		
		HT SW TO OFF						10		
7C	62	MON MASTER CAUTION	1	.73	100			10		P
		AND FUEL ANNUN LTS						10		
		ON						10		
7C	63	PRESS MASTER CAUT	1	2.02	100		100	10		P
		RESET SW						10		
7C	64	MON FUEL ANNUN LT ON	1	.56	100			10		P
7C	65	MON FUEL ANNUN LT	1	.56	100			10		
		OFF						10		
7C	66	PRESS ANNUN PNL	1	2.02	100			10		
		RECALL SW						10		
7C	67	CHECK ENG NO.1 FUEL	1	1.14	100			10		P
		HEAT SW OFF						10		
7C	68	CHECK ENG NO.2 FUEL	1	.83	100			10		P
		HEAT SW OFF						10		
7C	69	CHECK CROSSFEED	1	.81	100			10		P
		VALVE SW CLOSED						10		
7C	70	MON FUEL PUMP SWAS	1	1.59	100			10		P
		ALL SET TO ON						10		
		(6 SWITCHES)						10		
7C	71	MON FUEL PUMP SWAS	1	1.59	100			10		
		ALL SET TO OFF						10		
		6 SWITCHES'						10		
7C	72	PRESS FUEL QTY TEST	1	2.07	10	100		10		
		SW	2	2.07	10		100	10		
			3	6.20	5		100	10		
7D	01	MON DUCT PRESS INDIC	1	2.29	100			10		CP
7D	02	SET GASPER FAN SW TO	1	2.70	100	100		10		
		ON	2	2.70	100		100	10		
7D	03	SET GASPER FAN SW TO	1	2.70	100	100		10		
		OFF	2	2.70	100		100	10		
7D	04	ACTUATE WING BODY	1	2.20	100	100		10		
		OVRHT TEST SW						10		
7D	05	SET LEFT PACK SW	1	1.52	100	100		10		CP
		TO ON	2	2.49	100	100		10		CP
			3	1.52	100		100	10		
			4	2.69	100		100	10		
7D	06	SET LEFT PACK SW	1	1.52	100	100		10		
		TO OFF	2	2.49	100	100		10		
			3	2.65	100		100	10		
7D	07	SET LEFT PACK BLEED	1	2.00	100	100		10		CP
		SW TO ON						10		

7D	08	SET LEFT PACK BLEED SW TO OFF	1	2.00	100	100		10		CP
								10		
7D	09	MON LEFT PACK OFF LT ON	1	1.00	50			10		
								10		
7D	10	MON LEFT PACK OFF LT OFF	1	1.00	50			10		
								10		
7D	11	MON LEFT WING BODY OVRHT LT ON	1	1.00	50			10		CP
								10		
7D	12	MON LEFT WING BODY OVRHT LT OFF	1	1.00	50			10		
								10		
7D	13	MON LEFT BLEED TRIP OF LT ON	1	1.00	50			10		
								10		
7D	14	MON LEFT BLEED TRIP OFF LT OFF	1	1.00	50			10		
								10		
7D	15	SET LEFT ENG BLEED SW TO ON	1	2.40	100	100		10		
			2	1.53	100		100	10		
7D	16	SET LEFT ENG BLEED SW TO OFF	1	2.40				10		
			2	1.53				10		
7D	17	SET APU ENG BLEED SW TO ON	1	2.40	100	100		10		CP
			2	1.53	100		100	10		P
7D	18	SET APU ENG BLEED SW TO OFF	1	2.40	100	100		10		
			2	1.53	100		100	10		
7D	19	SET RIGHT PACK SW TO ON	1	2.60	100	100		10		CP
			2	1.52	100		100	10		
7D	20	SET RIGHT PACK SW TO OFF	1	2.60	100	100		10		
			2	2.00	100		100	10		
7D	21	MON RT PACK TRIP OFF LT ON	1	1.00	100			10		
								10		
7D	22	MON RT PACK TRIP OFF LT OFF	1	1.00	50			10		
								10		
7D	23	MON RT WING BODY OVRHT LT ON	1	1.00	50			10		
								10		
7D	24	MON RT WING BODY OVRHT LT OFF	1	1.00	50			10		
								10		
7D	25	MON RT BLEED TRIP OFF LT ON	1	1.00	50			10		
								10		
7D	26	MON RT BLEED TRIP OFF LT OFF	1	1.00	50			10		
								10		
7D	27	SET RT BLEED SW TO ON	1	2.60	100	100		10		
			2	1.53	100		100	10		
7D	28	SET RT BLEED SW TO OFF	1	2.60	100	100		10		
								10		
7D	29	ACTUATE PACK/BLEED/ DUCT OVRHT TRIP RESET SW	1	1.88	100	100		10		CP
								10		
								10		
7D	30	SET ISOLATION VALVE SW TO OPEN	1	1.85	100	100		10		CP
			2	1.77	100	100		10		
			3	1.53	100		100	10		P
7D	31	SET ISOLATION VALVE SW TO CLOSED	1	1.77	100	100		10		CP
			2	1.85	100	100		10		
			3	1.53	100		100	10		
7D	32	SET ISOLATION VALVE SW TO AUTO	1	1.77	100	100		10		
			2	1.85	100	100		10		
			3	1.53	100		100	10		
7D	33	MON DUAL BLEED LT ON	1	.28	100			10		
7D	34	MON DUAL BLEED LT OFF	1	.28	100			10		
								10		
7D	35	MON LEFT RAM DOOR FULL OPEN LT ON	1	.28	100			10		
								10		
7D	36	MON LEFT RAM DOOR	1	.28	100			10		

		FULL OPEN LT OFF								10	
7D	37	MON F OUTFLOW CLOSED	1	.27	100					10	P
		LT ON								10	
7D	38	MON F OUTFLOW CLOSED	1	.27	100					10	
		LT OFF								10	
7D	39	MON RT RAM DOOR FULL	1	.28	100					10	P
		OPEN LT ON								10	
7D	40	MON RT RAM DOOR FULL	1	.28	100					10	
		OPEN LT OFF								10	
7D	41	SET AIR TEMP SOURCE	1	3.21	100	100				10	CP
		SEL SW TO SUPPLY	2	3.21	100		100			10	
		DUCT								10	
7D	42	SET AIR TEMP SOURCE	1	3.21	100	100				10	
		SEL SW TO PASS CABIN								10	
7D	43	MON TEMP INDIC	1	2.69	100					10	P
			2	2.72	100					10	CP
			3	1	100					10	
7D	44	MON CONT CABIN AIR	1	2.07	100					10	CP
		MIX VALVE INDIC	2	2.01	100					10	P
7D	45	MON PASS CABIN AIR	1	2.05	100					10	CP
		MIX VALVE INDIC	2	2.02	100					10	P
			3	2.14	100					10	P
7D	46	MON CONT CAB DUCT	1	.97	100					10	CP
		OVHT LT ON	2	.94	100					10	P
7D	47	MON CONT CAB DUCT	1	.97	100					10	
		OVHT LT OFF	2	.94	100					10	
7D	48	MON PASS CAB DUCT	1	.94	100					10	P
		OVHT LT ON								10	
7D	49	MON PASS CAB DUCT	1	.94	100					10	
		OVHT LT OFF								10	
7D	50	SET CONT CABIN TEMP	1	3.23	100	100				10	CP
		SEL SW TO AUTO AND	2	2.12	100	100				10	
		ADJUST TEMP	3	2.12	100		100			10	
7D	51	SET CONT CABIN TEMP	1	3.23	100	100				10	
		SEL SW TO OFF	2	2.12	100	100				10	
7D	52	SET CONT CABIN TEMP	1	3.23	100	100				10	
		SEL SW TO COOL	2	2.12	100	100				10	
7D	53	SET CONT CABIN TEMP	1	3.23	100	100				10	
		SEL SW TO WARM	2	2.12	100	100				10	
7D	54	SET PASS CABIN TEMP	1	2.12	100	100				10	CP
		SEL SW TO AUTO AND	2	3.23	100	100				10	CP
		ADJUST TEMP	3	2.12	100		100			10	
7D	55	SET PASS CABIN TEMP	1	3.23	100	100				10	
		SEL SW TO OFF	2	2.12	100	100				10	
7D	56	SET PASS CABIN TEMP	1	3.23	100	100				10	
		SEL SW TO COOL	2	2.12	100	100				10	
7D	57	SET PASS CABIN TEMP	1	3.23	100	100				10	
		SEL SW TO WARM	2	2.12	100	100				10	
7D	58	MON MASTER CAUTION	1	.70	100	100				10	CP
		AND AIR COND ANNUN	2	.54	100	100				10	CP
		LTS ON								10	
7D	59	ACTUATE MASTER CAUT	1	2.14	100	100				10	CP2
		SESET SW								10	
7D	60	MON AIR COND ANNUN	1	.54	100					10	CP
		LT ON								10	
7D	61	MON AIR COND ANNUN	1	.54	100					10	
		LT OFF								10	
7D	62	ACTUATE ANNUN PNL	1	2.14	100	100				10	
		RECALL SW								10	
7D	63	CHECK THAT ISOLATION	1	1.35	100					10	P

		VALVE SW IS SET TO AUTO							10	
7D	64	CHECK THAT ENG NO.1 BLEED SW IS SET TO ON	1	1.31	100				10	P
7D	65	CHECK THAT ENG NO.2 BLEED SW IS SET TO ON	1	.77	100				10	P
7D	66	CHECK THAT APU BLEED SW IS SET TO ON	1	.77	100				10	
7D	67	MON LEFT PACK SW SET TO ON	1	1.35	100				10	P
7D	68	MON RT PACK SW SET TO OFF	1	.77	100				10	P
7D	69	MON PASS CAB TEMP CONT SETTING	1	2.67	100				10	P
7D	70	MON CONT CAB TEMP CONT SETTING	1	2.02	100				10	P
7E	01	MON CABIN ALT INDIC	1	1.27	100				10	P
			2	.7	100				10	
7E	02	MON CABIN RATE OF CLIMB INDIC	1	2.41	100				10	CP
			2	2.05	100				10	P
			3	2.47	100				10	P
7E	03	MON ALTITUDE WARNING HORN							10	
7E	04	ACTUATE ALT HORN CUTOUT SW	1	2.28	100	100			10	CP
			2	2.42	100		100		10	P
7E	05	SET FLT ALT CONT	1	2.50	20				10	P
7E	06	MON FLT ALT CNTR	1	1.17	90				10	
			2	2.5	80				10	
7E	07	SET LDG ALT CNTR	1	2.10	20				10	CP
			2	2.10	20				10	
7E	08	MON LDG ALT CNTR	1	1.17	90				10	P
7E	09	SET CABIN ALT CNTR	1	2.79	20				10	CP
			2	2.79	20				10	
7E	10	MON CABIN ALT CONTR	1	1.17	90				10	
			2	.88	100				10	
7E	11	ADJUST CABIN RATE-OF CLIMB CONT	1	2.13	100	100			10	CP
			2	2.13	100		100		10	
7E	12	MON OUTFLOW VALVE INDIC	1	2.34	100				10	CP
			2	2.10	100				10	CP
			3	2.03	100				10	CP
			4	.65	100				10	
7E	13	SET OUTFLOW VALVE SW TO CLOSE	1	2.21	100	100			10	CP
7E	14	SET OUTFLOW VALVE SW TO OPEN	1	2.21	100	100			10	
7E	15	SET FLT/GRD SW TO FLT	1	2.69	100	100			10	
			2	2.86	100	100			10	
			3	3.06	100		100		10	
7E	16	SET FLT/GRD SW TO GRD	1	2.69	100	100			10	CP
			2	2.39	100		100		10	
			3	2.86	100	100			10	
			4	3.00	100		100		10	
7E	17	SET PRESS MODE SEL SW TO CHECK	1	2.65	100	100			10	CP
7E	18	SET PRESS MODE SEL SW TO AUTO	1	2.65	100	100			10	
			2	2.63	100		100		10	
7E	19	SET PRESS MODE SEL SW TO STDBY	1	2.65	100	100			10	

7E	20	SET PRESS MODE SEL SW TO MAN-AC	1	2.65	100	100			10		
7E	21	SET PRESS MODE SEL SW TO MAN-DC	1	2.65	100	100			10		
7E	22	MON AUTO FAIL LT ON	1	.97	100				10		CP
7E	23	MON AUTO FAIL LT OFF	1	.97	100				10		
7E	24	MON OFF SCHED DESCENT LT ON	1	1.33	100				10		CP
7E	25	MON OFF SCHED DESCENT LT OFF	1	1.33	100				10		
7E	26	MON STDBY LT ON	1	.66	100				10		CP
			2	.60	100				10		CP
7E	27	MON STDBY LT OFF	1	.66	100				10		
			2	.60	100				10		
7E	28	MON MANUAL LT ON	1	.65	100				10		CP
7E	29	MON MANUAL LT OFF	1	.65	100				10		
7E	30	MON MASTER CAUTION AND AIR COND ANNUN LTS ON	1	.70	100				10		
			2	.54	100				10		
7E	31	PRESS MASTER CAUTION RESET SW	1	2.14	100	100			10		
7E	32	MON AIR COND ANNUN LT ON	1	.54	100				10		
7E	33	MON AIR COND ANNUN LT OFF	1	.54	100				10		
7E	34	PRESS ANNUN PNL RESET SW	1	2.14	100	100			10		
7E	35	MON FLT/GRD SW SET TO FLIGHT	1	.54	100				10		
7E	36	MON FLT/GRD SW SET TO GROUND	1	.54	100				10		
7E	37	MON CABIN PRESS INDC	1	.7	100				10		
7F	01	SET ENG VIB PICKUP SW TO TURB	1	1.91	100	100			10		CP
7F	02	SET ENG VIB PICKUP SW TO INLET	1	1.91	100	100			10		
7F	03	PRESS ENG VIB TEST SW	1	1.44	10	100			10		
			2	2.10	10	100			10		
			3	5.48	10		100		10		
7F	04	PRESS OIL QTY TEST SW	1	1.36	10	100			10		
			2	2.02	10	100			10		
			3	1.36	10		100		10		
			4	4.25	10		100		10		
7F	05	MON NO 1 ENG LO OIL PRESS LT ON	1	.83	100				10		CP
7F	06	MON NO 1 ENG LO OIL PRESS LT OFF	1	.83	100				10		
7F	07	MON NO 1 ENG OIL FILTER BYPASS LT ON	1	.83	100				10		
7F	08	MON NO 1 ENG OIL FILTER BYPASS LT OFF	1	.83	100				10		
7F	09	MON NO 1 ENG OIL PRESS INDIC	1	2.05	80				10		CP
			2	2.25	80				10		CP
			3	.44	50				10		
7F	10	MON NO 1 ENG OIL TEMP INDIC	1	2.05	80				10		
			2	2.25	80				10		
			3	2.28	100				10		CP
			4	.44	50				10		
7F	11	MON NO 1 ENG OIL QTY	1	2.05	100				10		

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		INDIC	2	2.25	100			10	
			3	.44	50			10	
7F	12	MON NO 1 ENG VIBRA-	1	2.05	90			10	
		TION AMPLITUDE INDIC	2	2.25	90			10	
			3	2.02	90			10	CP
			4	.44	50			10	
7F	13	MON NO 2 ENG LO OIL	1	.83	100			10	
		PRESS ANNUN LT ON						10	
7F	14	MON NO 2 ENG LO OIL	1	.83	100			10	
		PRESS ANNUN LT OFF						10	
7F	15	MON NO 2 ENG OIL	1	.83	100			10	
		FILTER BYPASS ANNUN						10	
		LT ON						10	
7F	16	MON NO 2 ENG OIL	1	.83	100			10	
		FILTER BYPASS ANNUN						10	
		LT OFF						10	
7F	17	MON NO 2 ENG OIL	1	2.05	100			10	
		PRESS INDIC	2	2.25	100			10	
			3	.44	50			10	
7F	18	MON NO 2 ENG OIL	1	2.05	100			10	
		TEMP INDIC	2	2.25	100			10	
			3	2.02	100			10	CP
			4	.44	50			10	
7F	19	MON NO 2 ENG OIL	1	2.05	100			10	
		QTY INDIC	2	2.25	100			10	
			3	2.08	100			10	CP
			4	.44	50			10	
7F	20	MON NO 2 ENG VIBR	1	2.05	90			10	
		AMPLITUDE INDIC	2	2.25	90			10	
			3	2.02	90			10	CP
			4	.44	50			10	
7F	21	MON NO 1 ENG N1 IND	1	2.02	100			10	20C
			2	2.52	100			10	
			3	.44	50			10	
7F	22	MON NO 2 ENG N1 IND	1	2.02	100			10	20C
			2	2.52	100			10	
			3	.44	50			10	
7F	23	MON NO 1 ENG N2 IND	1	2.02	100			10	C
			2	2.52	100			10	CP
			3	10.	100			10	
			4	.44	50			10	
7F	24	MON NO 2 ENG N2 IND	1	2.02	100			10	C
			2	2.52	100			10	
			3	10.	100			10	
			4	.44	50			10	
7F	25	MON ENG NO 1 EPR IND	1	2.24	100			10	
			2	2.02	100			10	
			3	30	5			5	P
			4	.44	50			10	
7F	26	SET ENG NO 1 EPR BUG	1	5	20	100		10	
			2	5	20		100	10	
			3	2.32	20		100	10	
			4	2.32	20	100		10	
7F	27	MON ENG NO 1 EPR BUG	1	2.00	80			10	
			2	.76	50			10	
7F	28	SET ENG NO 2 EPR BUG	1	5.00	20	100		10	
			2	5.00	20		100	10	
			3	2.32	20		100	10	
			4	2.32	20	100		10	
7F	29	MON ENG NO 2 EPR BUG	1	2.00	80			10	

			2	.76	50			10	
7F	30	MON ENG NO 2 EPR IND	1	2.24	100			10	
			2	2.02	100			10	
			3	.44	50			10	
			4	30	5			5	
7F	31	MON ENG NO 1 EXH GAS TEMP IND	1	2.02	100			10	C
			2	.44	50			10	
			3	30	5			5	
7F	32	MON ENG NO 2 EXH GAS TEMP IND	1	2.02	100			10	C
			2	.44	50			10	
			3	30	5			5	
7F	33	MON ENG NO 1 FUEL FLOW INDI[illegible]	1	2.02	100			10	C
			2	.44	50			10	
			3	30	5			5	
7F	34	MON ENG NO 2 FUEL FLOW INDIC	1	2.02	100			10	C
			2	.44	50			10	
			3	30	5			5	
7G	01	SET NO SMOKING LT SW TO ON	1	1.80	100		100	10	P
			2	2.71	100		100	10	
7G	02	SET NO SMOKING LT SW TO AUTO	1	1.80	100		100	10	
			2	2.71	100		100	10	
7G	03	SET NO SMOKING LT SW TO OFF	1	1.80	100		100	10	
			2	2.71	100		100	10	
7G	04	SET FASTEN SEAT BELT LT SW TO ON	1	1.71	100		100	10	P
								10	
7G	05	SET FASTEN SEAT BELT LT SW TO AUTO	1	1.71	100		100	10	
								10	
7G	06	SET FASTEN SEAT BELT LT SW TO OFF	1	1.71	100		100	10	
			2	1.71	100	100		10	
7G	07	ADJUST PANEL LTS BRIGHTNESS CONTROL	1	2.17	100		100	10	CP
			2	2.10	100		100	10	P
			3	2.73	100		100	10	P
7G	08	ADJUST BACKGROUND LTS BRIGHTNESS CONT	1	2.08	100		100	10	P
								10	
7G	09	ADJUST CIRCUIT BRKR LTS BRIGHTNESS CONT	1	3.31	100		100	10	P
			2	1.50	100		100	10	
7G	10	SET DOME LT SW TO DIM	1	3.43	100		100	10	P
								10	
7G	11	SET DOME LT SW TO OFF	1	3.43	100		100	10	
								10	
7G	12	SET DOME LT SW TO BRIGHT	1	3.43	100		100	10	
								10	
7G	13	ADJUST FLOOD LT BRIGHTNESS CONT	1	2.09	100		100	10	P
								10	
7G	14	ADJUST CONTROL STAND PANEL LTS BRIGHTNESS CONT	1	3.13	100		100	10	P
								10	
								10	
7G	16	SET LANDING LTS SW TO OFF	1	2.20	100		100	10	P
			2	1.50	100	100		10	
7G	17	SET LANDING LIGHTS SW TO ON	1	2.20	100		100	10	
			2	2.20	100	100		10	
7G	18	SET RUNWAY TURNOFF LTS SW TO ON	1	2.25	100		100	10	P
								10	
7G	19	SET RUNWAY TURNOFF LTS SW TO OFF	1	2.25	100		100	10	
								10	
7G	20	SET TAXI LTS SW TO ON	1	2.42	100		100	10	P
								10	
7G	21	SET TAXI LTS SW TO OFF	1	2.42	100		100	10	
								10	
7G	22	SET POSITION LTS SW	1	2.42	100		100	10	P

		TO ON BAT							10	
7G	23	SET POSITION LTS SW	1	2.42	100		100		10	
		TO OFF							10	
7G	24	SET POSITION LTS SW	1	2.42	100		100		10	
		TO ON	2	1.50	100		100		10	
7G	25	SET ANTI-COLLISION	1	2.44	100		100		10	P
		LTS SW TO OFF	2	2.44	100	100			10	
7G	26	SET ANTI-COLLISION	1	2.44	100		100		10	
		LTS SW TO OFF	2	2.44	100	100			10	
7G	27	SET WING LTS SW TO	1	2.47	100		100		10	P
		ON							10	
7G	28	SET WING LTS SW TO	1	2.47	100		100		10	
		OFF							10	
7G	29	SET WHEEL WELL LTS	1	2.48	100		100		10	P
		SW TO ON							10	
7G	30	SET WHEEL WELL LTS	1	2.48	100		100		10	
		SW TO OFF							10	
7G	31	SET LTS TEST SW TO	1	2.35	100		100		10	P
		TEST	2	10	10		100		10	
7G	32	SET LTS TEST SW TO	1	2.35	100		100		10	
		DIM							10	
7G	33	SET LTS TEST SW TO	1	2.35	100		100		10	
		OFF							10	
7G	34	SET EMER EXIT LTS	1	1.90	100		100		10	P
		SW TO OFF	2	1.99	100		100		10	P
			3	1.90	100	100			10	
7G	35	SET EMER EXIT LTS	1	1.90	100		100		10	
		SW TO ARMED	2	1.99	100		100		10	
7G	36	SET EMER EXIT LTS	1	1.90	100		100		10	
		SW TO ON	2	1.99	100		100		10	
7G	37	MON EMER EXIT LTS	1	.54	100				10	P
		NOT ARMED LT ON							10	
7G	38	MON EMER EXIT LTS	1	.54	100				10	
		NOT ARMED LT OFF							10	
7G	40	MON MASTER CAUTION	1	.20	100	100			10	
		AND OVHD ANNUN LTS	2	.54	100	100			10	
		ON							10	
7G	41	PRESS MASTER CAUT	1	2.14	100	100			10	
		RESET SW							10	
7G	42	MON OVHD ANNUN LT ON	1	.54	100				10	
7G	43	MON OVHD ANNUN LT	1	.54	100				10	
		OFF							10	
7G	44	PRESS ANNUN PNL	1	2.14	100	100			10	
		RECALL SW							10	
7G	46	MON INSTRUMENT LTS	1	10	90				10	
		ILLUMINATED BY LT							10	
		TEST SW							10	
7G	47	MON INST LTS DIMMED							10	
		WHEN LT TEST SW SET							10	
		TO DIM							10	
7G	48	MON SEAT BELT AND NO	1	1.27	100				10	P
		SMOKING LTS SWAS SET							10	
		TO AUTO							10	
7G	49	MON EMER EXIT LT SW	1	1.28	100				10	
		SET TO OFF							10	
7G	50	MON SEAT BELT LT SW	1	1.28	100				10	P
		SET TO OFF							10	
7G	51	MON SEAT BELTS, NO	1	1.27	100				10	
		SMOKING SWS SET ON							10	
7H	01	MON FLT CREW OXY	1	2.81	100				10	CP

		PRESS INDIC								10	
7H	02	MON PASS OXY PRESS INDIC	1	2.03	100					10 10	CP
7H	03	MON PASS OXY ON LT ON	1	1.59	100					10 10	CP
7H	04	MON PASS OXY ON LT OFF	1	1.59	100					10 10	
7H	05	SET PASS OXY SW TO ON	1	3.29	100		100			10 10	CP
7H	06	SET PASS OXY SW TO NORMAL	1	3.29	100		100			10 10	
7H	07	ACTUATE CREW OXY SHUTOFF VALVE	1	1.40	100		100			10 10	
7H	08	SET OXY EMERGENCY LEVER TO ON	1	1.30	100		100			10 10	
7H	09	SET OXY EMERGENCY LEVER TO OFF	1	1.30	100		100			10 10	
7H	10	SET OXY DILUTER LEVER TO NORMAL	1	1.40	100		100			10 10	
7H	11	SET OXY DILUTER LEVER TO 100 PCT	1	1.40	100		100			10 10	
7H	12	MON OXY FLOW INDIC	1	1.5	100					10	
7H	13	SET OXY SUPPLY SW TO ON	1	1.40	100		100			10 10	
7H	14	SET OXY SUPPLY SW TO OFF	1	1.40	100		100			10 10	
7H	15	OPEN EMERGENCY OXY MAN ACTUATION ACCESS DOOR								10 10 10	
7H	16	PULL EMERGENCY OXY MAN ACTUATION HANDLE								10 10	
7H	17	POT ON OXY MASK	1	4.0	100	100	100			10	
7H	18	TAKE OFF OXY MASK AND STOW	1	4.0	100	100	100			10 10	
7H	19	CHECK PORTABLE OXY BOTTLE PRESS AND MASK	1	5.0	100	100	100			10 10 10	
7H	20	SET CREW OXY VALVE TO OPEN	1	2.0	100		100			10 10	
7H	21	MON PASS OXY QTY INDIC	1	2.0	100					10 10	
7H	22	INHALE AND CHECK THAT NO AIR OR OXY IS SUPPLIED	1	4.0	100					10 10 10	
7H	23	INHALE AND CHECK THAT COCKPIT AIR IS SUPPLIED	1	4.0	100					10 10 10	
7H	24	INHALE AND CHECK THAT OXY IS SUPPLIED	1	4.0	100	100				10 10	
7H	25	INHALE AND CHECK THAT CONSTANT OXY PRESSURE SUPPLIED	1	4.0	100	100				10 10 10	
7J	01	SET WING ANTI-ICE SW TO GRD TEST	1	1.79	100	100				10	CP
			2	2.76	100	100				10	
7J	02	SET WING ANTI-ICE SW TO ON	1	1.79	100	100				10	
			2	2.76	100	100				10	
7J	03	SET WING ANTI-ICE SW TO OFF	1	1.79	100	100				10	
			2	2.76	100	100				10	
			3	1.79	100		100			10	
7J	04	MON WING ANTI-ICE	1	.56	100					10	CP

		L VALVE OPEN LT ON	2	.53	100			10	CP
7J	05	MON WING ANTI-ICE	1	.56	100			10	
		L VALVE OPEN LT OFF	2	.53	100			10	
7J	06	MON WING ANTI-ICE	1	.56	100			10	
		R VALVE OPEN LT ON	2	.53	100			10	
7J	07	MON WING ANTI-ICE	1	.56	100			10	
		R VALVE OPEN LT OFF	2	.53	100			10	
7J	08	SET ENG NO.1 ANTI-	1	1.49	100	100		10	CP
		ICE SW TO ON	2	2.76	100	100		10	
			3	1.68	100	100		10	CP
7J	09	SET ENG NO.1 ANTI-	1	1.50	100	100		10	
		ICE SW TO OFF	2	2.76	100	100		10	CP
			3	1.68	100	100		10	CP
			4	1.50	100		100	10	
7J	10	SET ENG NO.2 ANTI-	1	1.50	100	100		10	CP
		ICE SW TO ON	2	2.76	100	100		10	
			3	2.01	100	100		10	CP
7J	11	SET ENG NO.2 ANTI-	1	1.50	100	100		10	
		ICE SW TO OFF	2	2.76	100	100		10	
			3	2.01	100	100		10	
			4	1.50	100		100	10	
7J	12	MON ENG NO.1 L VALVE	1	.54	100			10	CP
		OPEN LT ON						10	
7J	13	MON ENG NO.1 L VALVE	1	.54	100			10	
		OPEN LT OFF						10	
7J	14	MON ENG NO.1 R VALVE	1	.54	100			10	CP
		OPEN LT ON						10	
7J	15	MON ENG NO.1 R VALVE	1	.54	100			10	
		OPEN LT OFF						10	
7J	16	MON ENG NO.1 COWL	1	.54	100			10	
		VALVE OPEN LT ON						10	
7J	17	MON ENG NO.1 COWL	1	.54	100			10	
		VALVE OPEN LT OFF						10	
7J	18	MON ENG NO.2 L VALVE	1	.54	100			10	
		OPEN LT ON						10	
7J	19	MON ENG NO.2 L VALVE	1	.54	100			10	CP
		OPEN LT OFF						10	
7J	20	MON ENG NO.2 R VALVE	1	.54	100			10	
		OPEN LT ON						10	
7J	21	MON ENG NO.2 R VALVE	1	.54	100			10	
		OPEN LT OFF						10	
7J	22	MON ENG NO.2 COWL	1	.54	100			10	
		VLAVE OPEN LT ON						10	
7J	23	MON ENG NO.2 COWL	1	.54	100			10	
		VALVE OPEN LT OFF						10	
7J	24	SET PITOT STATIC SYS	1	2.75	100	100		10	CP
		A HT SW TO ON	2	1.42	100	100		10	CP
			3	1.42	100		100	10	
7J	25	SET PITOT STATIC SYS	1	2.75	100	100		10	
		A HT SW TO OFF	2	1.42	100	100		10	
			3	1.42	100		100	10	
7J	26	SET PITOT STATIC SYS	1	2.75	100	100		10	
		B HT SW TO ON	2	1.42	100	100		10	
			3	1.42	100		100	10	
7J	27	SET PITOT STATIC SYS	1	2.75	100	100		10	
		B HT SW TO OFF	2	1.42	100	100		10	
			3	1.42	100		100	10	
7J	28	MON CAPT PITOT HTR	1	1.13	100			10	CP
		LT ON	2	1	50			10	
7J	29	MON CAPT PITOT HTR	1	1.13	100			10	

		LT OFF							10	
7J	30	MON CAPT STATIC 1	1	1.13	100				10	
		AUX P/S HTF LT ON	2	1	50				10	
7J	31	MON CAPT STATIC 1	1	1.13	100				10	
		AUX P/S HTR LT OFF							10	
7J	32	MON L ELEV PITOT HTR	1	1.13	100				10	
		LT ON	2	1	50				10	
7J	33	MON L ELEV PITOT HTR	1	1.13	100				10	
		LT OFF							10	
7J	34	MON F/O PITOT HTR	1	1.14	100				10	CP
		LT ON	2	1	50				10	
7J	35	MON F/O PITOT HTR	1	1.14	100				10	
		LT OFF							10	
7J	36	MON F/O STATIC 2	1	1.14	100				10	
		AUX P/S HTR LT ON	2	1	50				10	
7J	37	MON F/O STATIC 2	1	1.14	100				10	
		AUX P/S HTR LT OFF							10	
7J	38	MON R ELEV PITOT	1	1.14	100				10	
		HTR LT ON	2	1	50				10	
7J	39	MON R ELEV HTR LT	1	1.14	100				10	
		OFF							10	
7J	40	MON MASTER CAUTIONAND	1	.70	100	100			10	
		ANTI-ICE ANNUN LTS	2	.54	100	100			10	
		ON							10	
7J	41	PRESS MASTER CAUTION	1	2.14	100	100			10	
		RESET SW							10	
7J	42	MON ANTI-ICE ANNUN	1	.54	100				10	
		LT ON							10	
7J	43	MON ANTI-ICE ANNUN	1	.54	100				10	
		LT OFF							10	
7J	44	PRESS ANNUN PNL	1	2.14	100	100			10	
		RECALL SW							10	
7J	45	MON PITOT STATIC SYS	1	1.47	100				10	P
		A HT SW SET TO ON							10	
7J	46	MON PITOT STATIC SYS	1	.75	100				10	P
		B HT SW SET TO ON							10	
7J	47	MON PITOT STATIC SYS	1	1.47	100				10	P
		A HT SW SET TO OFF							10	
7J	48	MON PITOT STATIC SYS	1	.75	100				10	P
		B HT SW SET TO OFF							10	
7J	49	MON ENG 1 ANTI-ICE	1	1.42	100				10	P
		SW TO OFF							10	
7J	50	MON ENG 2 ANTI-ICE	1	.76	100				10	P
		SW SET TO OFF							10	
7K	01	PUSH L RAIN REPEL SW	1	2.31	100		100		10	P
7K	02	PUSH R RAIN REPEL SW	1	1.38	100		100		10	P
7K	03	SET WINDSHIELD WIPER	1	2.37	80		100		10	
		SEL SW TO OFF							10	
7K	04	SET WINDSHIELD WIPER	1	2.37	80		100		10	
		SEL SW TO LOW							10	
7K	05	SET WINDSHIELD WIPER	1	2.37	80		100		10	
		SEL SW TO HIGH							10	
7K	06	SET WINDSHIELD WIPER	1	2.37	80		100		10	
		SEL SW TO PARK							10	
7K	07	SET WINDOW HEAT SWS	1	4.22	100	100			10	CP
		TO ON							10	
7K	08	SET WINDOW HEAT SWS	1	4.22	100	100			10	
		TO OFF							10	
7K	09	MON RAIN REPELLANT	1	2.0	100				10	
		QTY INDIC							10	

7K	10	CHECK WINDSHIELD WIPER SWS SET TO OFF	1	1.19	100			10 10 10		P
7K	11	MON WINDOW HEAT ON LTS GREEN	1	1.14	100			10 10		CP
7K	12	MON WINDOW HEAT ON LTS OFF	1	1.14	100			10 10		
7K	13	MON WINDOW OVRHT LTS ON	1	1.81	100			10 10		CP
7K	14	MON WINDOW OVRHT LTS OFF	1	1.81	100			10 10		
7K	15	ACT WINDOW OVRHT TEST SW	1	2.04	100			10 10		CP
7K	16	SET WINDOW HT SW OFF	1	1.2	20		100	10		
7L	01	MON APU EXHAUST TEMP GAGE INDIC	1	2.09	100			10 10		P
7L	02	MON APU AC AMPS IND	1	2.09	100			10		
			2	2.41	100			10		P
7L	03	MON APU LOW OIL QTY LT ON	1	.85	100			10 10		P
7L	04	MON APU LOW OIL QTY LT OFF	1	.85	100			10 10		
7L	05	MON APU LOW OIL PRESS LT ON	1	.54	100			10 10		P
7L	06	MON APU LOW OIL PRESS LT OFF	1	.54	100			10 10		
7L	07	MON APU HIGH OIL TEMP LT ON	1	.54	100			10 10		P
7L	08	MON APU HIGH OIL TEMP LT OFF	1	.54	100			10 10		
7L	09	MON APU OVRSPD LT ON	1	.54	100			10 10		P
7L	10	MON APU OVRSP LT OFF	1	.54	100			10		
7L	11	SET APU SW TO OFF	1	3.59	100		100	10		P
			2	2.73	100		100	10		P
			3	2.57	100		100	10		P
			4	2.29	100		100	10		P
7L	12	SET APU SW TO ON	1	3.59	100		100	10		
			2	2.73	100		100	10		
			3	2.57	100		100	10		
			4	2.29	100		100	10		
7L	13	SET APU SW TO START-MOMENTARY ACTION	1	3.59	100		100	10		
			2	2.73	100		100	10		
			3	2.57	100		100	10		
			4	2.29	100		100	10		
7L	14	MON MASTER CAUTION AND APU ANNUN LTS ON	1	.73	100			10 10		
7L	15	PRESS MASTER CAUTION RESET SW	1	2.14	100	100		10 10		
7L	16	MON APU ANNUN LT ON	1	.54	100			10		
7L	17	MON APU ANNUN LT OFF	1	.54	100			10		
7L	18	PRESS ANNUN RNL RECALL SW	1	2.14	100	100		10 10		
7L	19	OPEN CB C6 ON P6-5 PANEL	1	5.	100		100	10 10		
7L	20	MON APU START SW SET TO OFF	1	.75	100			10 10		
7L	21	SET APU START SW TO OFF	1	1.5	100	100		10 10		
7L	22	SET APU START SW ON	1	2.29	50	100		10		

7L	23	MON APU WARN LTS	1	.88	100			10		
7M	01	SET ENG NO.1 START	1	3.0	80		100	10		
		SW TO OFF	2	2.43	80		100	10		
			3	3.54	80		100	10		P
			4	1.74	80		100	10		P
7M	02	SET ENG NO.1 START	1	3.0	80		100	10		
		SW TO GRD	2	2.43	80		100	10		
			3	3.54	80		100	10		
			4	1.74	80		100	10		
7M	03	SET ENG NO.1 START	1	3.0	80		100	10		
		SW TO FLT	2	2.43	80		100	10		
			3	3.54	80		100	10		
			4	1.74	80		100	10		
7M	04	SET ENG NO.2 START	1	3.0	80		100	10		
		SW TO OFF	2	2.43	80		100	10		
			3	3.54	80		100	10		
			4	1.74	80		100	10		
7M	05	SET ENG NO.2 START	1	3.0	80		100	10		
		SW TO GRD	2	2.43	80		100	10		
			3	3.54	80		100	10		
			4	1.74	80		100	10		
7M	06	SET ENG NO.2 START	1	3.0	80		100	10		
		SW TO FLT	2	2.43	80		100	10		
			3	3.54	80		100	10		
			4	1.74	80		100	10		
7M	07	SET ENG NO 1 START	1	2.51	50		100	10		
		LEVER TO START						10		
7M	08	SET ENG NO 1 START	1	3.00	50		100	10		
		LEVER TO CUTOFF	2	2.80	50	100		10		
			3	3.24	50		100	10		
			4	3.24	50	100		10		
7M	09	SET ENG NO 2 START	1	2.51	50		100	10		
		LEVER TO START						10		
7M	10	SET ENG NO 2 START	1	3.24	50		100	10		
		LEVER TO CUTOFF	2	2.51	50		100	10		
			3	2.51	50	100		10		
7M	11	MON ENG START SWaS	1	.52	100			10		
		IN FLT POS						10		
7M	12	CHECK ENG NO.1 START	1	2.41	100			10		P
		SW SET TO OFF	2	1.50	100			10		
7M	13	CHECK THAT ENG NO.2	1	2.02	100			10		P
		START SW SET TO OFF	2	.78	100			10		
7M	14	CHECK THAT ENG START	1	1.30	100			10		P
		LEVERS IN OFF POS	2	.78	100			10		P
7M	15	MON ENG 2 START LVR	1	1.30	100			10		
		AUTOMATICALLY MOVED	2	.78	100			10		
		TO OFF						10		
7M	16	MON ENG 1 START LVR	1	1.30	100			10		
		AUTOMATICALLY MOVED	2	.78	100			10		
		TO OFF						10		
7M	17	SET ENG NO.1 START	1	2.50	100	100		10		
		SET TO OFF						10		
7M	18	SET ENG NO.2 START	1	1.50	100	100		10		
		SW TO OFF						10		
7P	01	SET ENG NO.1 OVRHT	1	2.46	100		100	10		P
		DETEC SW TO NORMAL						10		
7P	02	SET ENG NO.1 OVRHT	1	2.46	100		100	10		
		DETEC SW TO FIRE						10		
7P	03	SET ENG NO.2 OVRHT	1	1.63	100		100	10		P
		DETEC SW TO NORMAL						10		

7P	04	SET ENG NO.2 OVRHT DETEC SW TO FIRE	1	1.63	100	100	10 10		
7P	05	MOV ENG NO.1 OVRHT LT ON	1 2	.90 .54	100 100		10 10		P
7P	06	MON ENG NO.1 OVRHT LT OFF	1 2	.90 .54	100 100		10 10		
7P	07	MON ENG NO.2 OVRHT LT ON	1 2	.90 .54	100 100		10 10		
7P	08	MON ENG NO.2 OVRHT LT OFF	1 2	.90 .54	100 100		10 10		
7P	09	SET OVRHT TEST SW TO OVRHT	1 2	2.20 1.62	100 100	100 100	10 10		
7P	10	SET OVRHT TEST SW TO FIRE	1	.50	100	100	10 10		
7P	11	ACTUATE EXT TEST SW	1	1.63	25	100	10		P
7P	12	MON EXT TEST LTS ON	1	.54	75		10		P
7P	13	MON WHEEL WELL FIRE WARNING LT ON	1	1.24	100		10 10		P
7P	14	MON WHEEL WELL FIRE WARNING LT OFF	1	1.24	100		10 10		
7P	15	MON ENG NO.1 FIRE WARNING LT ON	1 2 3 4	.91 .54 2.57 5.0	100 100 100 100		10 10 10 10		P P 7P
7P	16	MON ENG NO.1 FIRE WARNING LT OFF	1 2 3	.91 .54 15.	100 100 100		10 10 10		 7P
7P	17	PULL ENG NO.1 FIRE WARNING SW HANDLE UP WARNING SW HANDLE UP	1 2	1.87 1.87	100 100 100	100	10 10 10		P 7P
7P	18	ROTATE ENG NO.1 FIRE WARNING SW HANDLE TO LEFT	1 2	2.13 2.13	100 100 100	100	10 10 10		P 7P
7P	19	ROTATE ENG NO.1 FIRE WARNING SW HANDLE TO RIGHT	1	2.33	100	100	10 10 10		P
7P	20	ACTUATE ENG NO.1 FIRE WARNING OVERRIDE SW					10 10 10		
7P	21	MON ENG NO.2 FIRE WARNING LT ON	1 2	.80 .54	100 100		10 10		P
7P	22	MON ENG NO.2 FIRE WARNING LT OFF	1 2	.54 .80	100 100		10 10		
7P	23	PULL ENG NO.2 FIRE WARNING SW HANDLE UP	1 2	1.73 1.91	100 100	100 100	10 10		P P
7P	24	ROTATE ENG NO.2 FIRE WARNING SW HANDLE TO LEFT	1 2 3	2.33 2.53 2.13	100 100 100	100 100 100	10 10 10		P P
7P	25	ROTATE ENG NO.2 FIRE WARNING SW HANDLE TO RIGHT	1 2 3	2.53 2.33	100 100	100 100	10 10 10		
7P	26	ACTUATE ENG NO.2 FIRE WARNING OVRRD SW					10 10 10		
7P	27	MON L BOTTLE DISCHARGE LT ON	1 2	.58 .27	100 100		10 10		P P
7P	28	MON L BOTTLE DISCHARGE LT OFF	1 1	.58 .27	100 100		10 10		
7P	29	MON R BOTTLE DISCHARGE LT ON	1 2	.58 .26	100 100		10 10		 P

7P	30	MON R BOTTLE	1	.58	100			10					
		DISCHARGE LT OFF	2	.26	100			10					
7P	31	MON APU FIRE	1	.98	100			10					P
		WARNING LT ON	2	.54	100			10					
7P	32	MON APU FIRE	1	.98	100			10					
		WARNING LT OFF	2	.54	100			10					
7P	33	PULL APU FIRE	1	1.16	100		100	10					P
		WARNING SW HANDLE UP	2	1.89	100		100	10					P
7P	34	ROTATE APU FIRE	1	2.33	100		100	10					P
		WARNING SW HANDLE	2	2.53	100		100	10					P
		TO LEFT	3	2.13	100		100	10					P
7P	35	ROTATE APU FIRE	1	2.33	100		100	10					
		WARNING SW HANDLE	2	2.53	100		100	10					
		TO RIGHT	3					10					
7P	36	ACTUATE APU FIRE						10					
		WARNING OVERRIDE SW						10					
7P	37	MON APU BOTTLE	1	.27	100			10					P
		DISCHARGED LT ON						10					
7P	38	MOM APU BOTTLE	1	.27	100			10					
		DISCHARGED LT OFF						10					
7P	39	MONITOR FIRE ALARM	1	.71	100			10	100				P
		WARNING LT AND BELL						10					
7P	40	PULL FIRE ALARM	1	1.50	100		100	10					
		BELL CUTOUT SW	2	1.20	100		100	10					P
			3	.91	100		100	10					P
7P	41	MON MASTER CAUTION	1	.73	100			10					
		AND OVHT/DET ANNUN						10					
		LTS ON						10					
7P	42	PRESS MASTER CAUTION	1	2.14	100	100		10					
		RESET SW						10					
7P	43	MON OVHT/DET ANNUN	1	.54	100			10					
		LT ON						10					
7P	44	MON OVHT/DET ANNUN	1	.54	100			10					
		LT OFF						10					
7P	45	PRESS ANNUN PNL	1	2.14	100	100		10					
		RECALL SW						10					
7P	46	MON FIRE WARNING	1	.54	100			10	100				P
		BELL AND ANNUN LTS						10					
		ON						10					
7P	47	PRESS FIRE WARNING	1	1.35	100		100	10					P
		ANNUN LT SW						10					
7P	48	MON ENG NO.1 OVRHT	1	.90	100			10					
		DETECT SW ON NORMAL						10					
7P	49	MON ENG NO.2 OVRHT	1	.90	100			10					
		DETECT SW ON NORMAL						10					
7P	50	MON APU DETECT INOP	1	.90	100			10					
		LT ON	2	.54	100			10					
7P	51	MON APU DETECT INOP	1	.90	100			10					
		LT OFF						10					
7P	52	SET OVHT TEST SW	1	.50	100		100	10					
		TO OFF						10					
7P	53	MONITOR LIGHT + BELL	1	.54				10	100	1007P			
		OFF						10					
7Q	01	PRESS CABIN DOOR	1	2.66	50		100	10					
		UNLOCK SW	2	2.44	50		100	10					P
			3	3	50	100		10					
7Q	02	MON CABIN DOOR LOCK	1	1.29	100			10					P
		LT ON						10					
7Q	03	MON CABIN DOOR LOCK	1	1.29	100			10					
		LT OFF						10					

7Q	04	MON MASTER CAUTION AND DOORS ANNUN LTS	1	.73		100			10 10	
7Q	05	PRESS MASTER CAUT RESET SW	1	2.14		100	100		10 10	
7Q	06	MON DOORS ANNUN LT ON	1	.54		100			10 10	
7Q	07	MON DOORS ANNUN LT OFF	1	.54		100			10 10	
7Q	08	PRESS ANNUN PNL RECALL SW	1	2.14		100	100		10 10	
7Q	09	MON FWD ENTRY LT ON	1	1.55		100			10	CP
7Q	10	MON FWD ENTRY LT OFF	1	1.55		100			10	
7Q	11	ACTUATE FWD ENTRY LT TEST SW	1	2.46		100		100	10 10	P
7Q	12	MON AFT ENTRY LT ON	1	1.55		100			10	
7Q	13	MON AFT ENTRY LT OFF	1	1.55		100			10	
			2	1.12		100			10	
7Q	14	ACTUATE AFT ENTRY LT TEST SW	1	1.38		100		100	10 10	P
7Q	15	MON AIR STAIRS LT ON	1	1.12		100			10 10	CP
7Q	16	MON AIR STAIRS LT OFF	1	1.12		100			10 10	
7Q	17	ACTUATE AIR STAIRS LT TEST SW	1	1.41		100		100	10 10	P
7Q	18	MON EQUIP / TIRE BURST LT ON	1	1.12		100			10 10	
7Q	19	MON EQUIP / TIRE BURST LT OFF	1	1.12		100			10 10	
7Q	20	ACTUATE EQUIP / TIRE BURST TEST SW	1	1.38		100		100	10 10	P
7Q	21	MON FWD CARGO LT ON	1	1.12		100			10	CP
7Q	22	MON FWD CARGO LT OFF	1	1.12		100			10	
7Q	23	ACTUATE FWD CARGO LT TEST SW	1	1.39		100		100	10 10	P
7Q	24	MON AFT CARGO LT ON	1	1.12		100			10	
7Q	25	MON AFT CARGO LT OFF	1	1.12		100			10	
7Q	26	ACTUATE AFT CARGO LT TEST SW	1	1.38		100		100	10 10	P
7Q	27	MON FWD SERVICE LT ON	1	1.12		100			10 10	CP
7Q	28	MON FWD SERVICE LT OFF	1	1.12		100			10 10	
7Q	29	ACTUATE FWD SERVICE LT TEST SW	1	1.40		100		100	10 10	P
7Q	30	MON AFT SERVICE LT ON	1	1.12		100			10 10	
7Q	31	MON AFT SERVICE LT OFF	1	1.12		100			10 10	
7Q	32	ACTUATE AFT SERVICE LT TEST SW	1	1.38		100		100	10 10	P
8A	01	VIEW RUNWAY AHEAD	1	2.0	100				5	
			2	75	70				5	
			3	26	50				5	
8A	02	CAPT VIEW THRU NO.1 WINDOW	1	50	70				5	
			2	140	70				5	
			3	60	70				5	
			4	45	70				5	
8A	03	F.O. VIEW THRU NO.1 WINDOW	1	2.0	100				5	
			2	10	10				5	

			3	240	10					5	
			4	26	10					5	
8A	04	CAPT VIEW THRU NO.1 WINDOW	1	100	75					5	
			2	110	75					5	
			3	15	75					5	
			4	30	75					5	
8A	05	CAPT VIEW THRU NO.1 WINDOW	1	10	25					5	
			2	5	25					5	
			3	30	25					5	
			4	60	25					5	
8A	06	CAPT VIEW THRU NO.1 WINDOW	1	300	25					5	
			2	110	25					5	
			3	26	70					5	
			4	134	25					5	
8A	07	F.O. VIEW OUT NO.1 WINDOW	1	134	25					5	
			2	78	25					5	
			3	150	25					5	
			4	10	25					5	
8A	08	CAPT VIEW THRU NO 1	1	285	25					5	
			2	75	25					5	
			3	90	25					5	
			4	20	25					5	
8A	09	F.O. VIEW OUT NO.1 WINDOW	1	110	25					5	
			2	60	25					5	
			3	5	25					5	
			4	30	25					5	
8A	10	CRWMBR EXTERNAL VISION SCAN	1	5	25					5	
			2	10	25					5	
			3	15	25					5	
			4	20	25					5	
8A	11	CRWMBR EXTERNAL VISION SCAN	1	25	25					5	
			2	30	25					5	
			3	35	25					5	
			4	40	25					5	
8A	12	CRWMBR EXTERNAL VISION SCAN	1	45	25					5	
			2	50	25					5	
			3	55	25					5	
			4	60	25					5	
8A	13	CRWMBR EXTERNAL VISION SCAN	1	100	25					5	
			2	200	25					5	
			3	300	25					5	
			4	400	25					5	
8A	14	CRWMBR EXTERNAL VISION SCAN	1	500	25					5	
			2	1000	15					5	
			3	1500	15					5	
			4	2000	15					5	
8A	15	PILOT FLYING SCANS TDZ FOR FLARE CUES	1	26	80					60	
			2	30	80					60	
			3	10	80					60	
8B	01	RECORD DATA	1	15		20		100		10	
			2	2.0		100	50	100		10	
8B	02	RETREIVE CHECKLIST	1	4		10		100		10	
			2	5.9		10		100		10	P1
			3	5.9		10	100			10	
8B	03	READ NEXT ITEM ON CHECKLIST	1	2.0		100				10	
			2	4.0		100				10	
			3	6.0		100				10	
			4	8.0		100				10	
8B	04	REFER TO HANDWRITTEN DATA	1	2.0		100				10	
			2	4.0		100				10	

			3	8.0	100			10			
			4	12.0	100			10			
8B	05	FIND CHECKLIST IN HANDBOOK	1	10.0	100	50	50	10			
			2	5.0	100	50	50	10			
8B160007		RETREIVE/REVIEW APPROACH PLATE						10			
8B160008		REVIEW/ACKNOWLEDGE APPROACH PLATE DATA						10			
8B	08	STOW CHECKLIST	1	3.0	50	50	100	10			
8B	06	RETREIVE CHARTS	1	6	20		100	10			
			2	6	20		100	10			
8B040001		REVIEW DEPARTURE CHART	1	10.91	100		100	10			P2
			2	10.91	100	100		10			CP1
8B	07	STOW CHARTS	1	5.91			100	10			P2
8B010001		RETREIVE/REVIEW COCPIT SAFETY INSPEC CHECKLIST	1	20	100		100	10			
8B010002		REFER TO DATA TO DETERMINE NAV AND COMM FREQaS	1	5.	100	100	100	10			
8B010003		CHECK THAT MANIFEST, WEIGHT SHEET, AND RELEASE PAPERS OK	1	15.	100	100	100	10			
8B010004		RETREIVE FLIGHT PLANNING REF. DATA MANUAL	1	3.0	50	100	50	10			
8B010005		STOW FLIGHT PLANNING REF. DATA MANUAL	1	2.0	50	100	50	10			
8B010006		REFER TO REF. DATA AND COMPUTE TAKEOFF EPR BUG SETTING VALUE	1	30.	100	100	100	10			
8B010007		REFER TO REF. DATA AND COMPUTE TAKEOFF V1 AND VR BUG SET VALUES	1	30.	100	100	100	10			
8B090001		READ NEXT ITEM ON CHECKLIST ON CONTROL COLUMN PLACARD	1	1.	100			10			
8B090002		REVIEW CHARTS TO DETERMINE SPARTAN-BURG VOR FREQ	1	5.	100	100		10			8B090
8B090003		REVIEW CHARTS TO DETERMINE GORDONS-VILLE VOR FREQ	1	5	100	100		10			
8B110001		REVIEW CHARTS TO DETERMINE PULASKI VOR FREQ	1	5	100	100		10			
8B140001		REVIEW CHARTS TO DETERMINE TOCCOA VOR FREQ	1	5	100	100		10			
8B140002		REVIEW CHARTS TO DETERMINE NORCROSS VOR FREQ	1	5	100	100		10			
8B140003		REVIEW CHARTS TO DETERMINE CHATTA-NOOGA VOR FREQ	1	5	100	100		10			
8B160001		DETERMINE GO-AROUND EPR BUG SET VALUE	1	5	100	50	50	10			
8B200001		COMPLETE AIRPLANE	1	30	100	50	50	10			

		AND FLIGHT FORMS									10	
8B160002		DETERMINE LANDING V-REF BUG SET VALUE	1	5	100	50	50				10 10	
8B160003		REVIEW CHARTS TO DETERMINE RUNWAY 08 ILS FREQ AND REG VOR FREQ	1	5	100	50	50				10 10 10 10	
8B020001		RETREIVE LOADING MANIFEST	1	3	100		100				10 10	
8B020002		REVIEW LOADING MANIFEST TO DETERMINE ZERO FUEL WT	1	3	100		100				10 10 10	
8B020003		STOW MANIFEST	1	2	100		100				10	
8C	01	FASTEN SEAT BELT AND HARNESS	1	2.20		100	100				10 10	P22
8C	02	ADJUST SEAT TO ALIGN BALLS	1	10.0	100	100	100	100	100		10 10	
8C	03	TAKE SEAT	1	3.0	100	100	100	100	100		10	
8D	01	CHECK EMERGENCY EQUIPMENT	1	10.	100	100	100				10 10	
8D	02	CHECK C02 FIRE EXT BOTTLE	1	5.	100	100	100				10 10	
8D	03	CHECK FIRE AXE INSTALLED	1	2.0	100						10 10	
8D	04	CHECK ESCAPE STRAPS	1	1.5	100		100				10	
8E	01	CHECK HEADSET	1	1.5	100	100					10	
8E	02	CHECK SUNVISORS AND SMOKE GOGGLES STOWED	1	3.0	100	100	100				10 10	
8E	03	PUT ON HEADSET	1	3.0	100	100	100				10	
8E	04	RETRIEVE AND PUT ON SMOKE GOGGLES	1 2	4 4	50 50	100	100				10 10	
8F	DUMMY	DUMMY TASK	1	1							10	

SUBSYSTEMS	
1A VHF-1 (FFD)	23-21-02
1B VHF-2 (FFD)	23-21-02
1F INTERPHONE	23-42-03
1G PUBLIC ADDRESS	23-31-00
1H GROUND CREW CALL	23-43-00
1J VOICE RECORDER	23-71-02
1M SELCAL	23-28-00
1N TRANSPONDER	34-53-02
1P VOICE	
1Q VHF-1 (AFD)	23-21-02
1R VHF-2 (AFD)	23-21-02
1S VHF-3 (AFD)	23-21-02
1T LOUDSPEAKER	
2H ADV GDC CNTRL SYS (AGCS)	
2J ELEC ATT DIREC INDIC (EADI)	
2K MULTI-FUNCTION DISPLAY (MFD)	
2L NAV CNTRL DISP UNIT (NCDU)	
3A AIRSPEED INDIC	
3F MACH INDIC	34-13-06
3H CORRECTED BARO ALTITUDE INDIC	34-13-04
3J RADIO ALTIMETER	34-30-00
3K ALTITUDE ALERT SYS	34-16-00
3L VERTICAL SPEED INDIC	34-13-01
3M ELAPSED TIME INDIC	31-25-00
3N CLOCK	31-25-00
3P STANDBY ATTITUDE REF INDIC	34-24-00
3Q FLIGHT RECORDER	31-31-02
3R FLIGHT DIRECTOR INDIC (FDI)	34-41-05
3S COURSE INDIC (CI)	34-41-06
3U TOTAL AIR TEMP INDIC	34-13-07
3V APPROACH PROGRESS DISPLAY	34-34-00
3W INSTRUMENT COMPARATOR DISPLAY	34-44-00
4A PRIMARY ATTITUDE CONTROLS	27-00-00
4B PROPULSION CONTROLS/THROTTLES	76-11-00
4C THRUST REVERSER CONTROLS	78-34-00
4D LANDING GEAR AND BRAKES	32-00-00
4E FLAPS	27-50-00
4F SPEED BRAKES	27-62-00
4G TRIM	
4H AUTO FLIGHT CONTROLS	22- -00
4M NOSE WHEEL STEERING	32-51-00
4N LEADING EDGE DEVICES	27-81-00
5D ADF/RMI 1	34-57-01
5E ADF/RMI 2	34-57-02
5G VOR/RMI 1	34-31-01
5H VOR/RMI 2	34-31-01
5J VORTAC	34-31-00
5K STANDBY COMPASS	34-22-00
5P DME-1	34-55-00
5Q DME-2	34-55-00
5U VHF/NAV-1 (FFD)	
5V VHF/NAV-2 (FFD)	
5W VHF/NAV-1 (AFD)	
5X VHF/NAV-2 (AFD)	
5Y VHF/NAV-3 (AFD)	
6A WEATHER RADAR	34-43-00
6C TELEVISION	
7A HYDRAULIC SUBSYSTEM	29-00-00
7B ELECTRICAL SUBSYSTEM	24-00-00

7C	FUEL SUBSYSTEM	28-00-00
7D	AIR CONDITIONING SUBSYSTEM	21-00-00
7E	CABIN PRESSURE SUBSYSTEM	21-31-03
7F	PROPULSION SUBSYSTEM	23-20-00
7G	FLIGHT SUBSYSTEM	33-00-00
7H	OXYGEN SUBSYSTEM	35-00-00
7J	ANTI-ICE SUBSYSTEM	30-00-00
7K	RAIN REMOVAL AND DEFOG SYBSYS	30-40-00
7L	AUX POWER UNIT	49-61-00
7M	ENGINE START CONTROLS	74-31-00
7P	FIRE/OVERHEAT/SMOKE DETEC	26-00-00
7Q	DOORS	
8A	PILOT/COPILOT EXT VISION	
8B	MAPS/ CHARTS/CHKLST/REF/DATA	
8C	SEATS/SEATBELTS	
8D	EMERGENCY EQUIPMENT	
8E	PERSONAL EQUIPMENT	

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15. Supplementary Notes

Langley Technical Monitor: Amos A. Spady, Jr.
Final Report

16. Abstract

This volume contains the data used to validate a seven time line analysis of Forward Flight Deck Autopilot Mode for the pilot and copilot for NASA B737 Terminal Configured Vehicle. The output presents two measures of demand workload and a report showing task length and task interaction.

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